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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

Vol. LIII.

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LONDON, ONTARIO, FEBRUARY 21, 1918.

No. 1326

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Goes Like Sixty

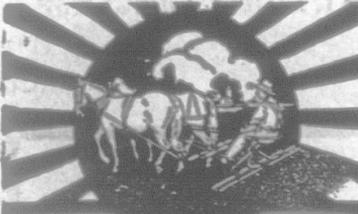


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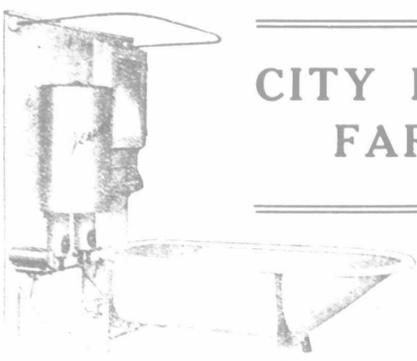
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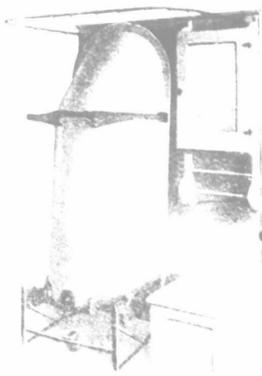


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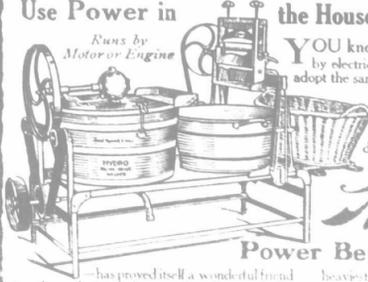
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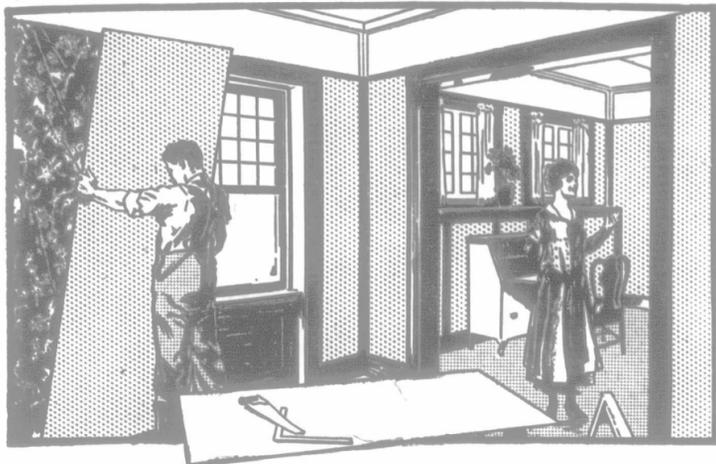
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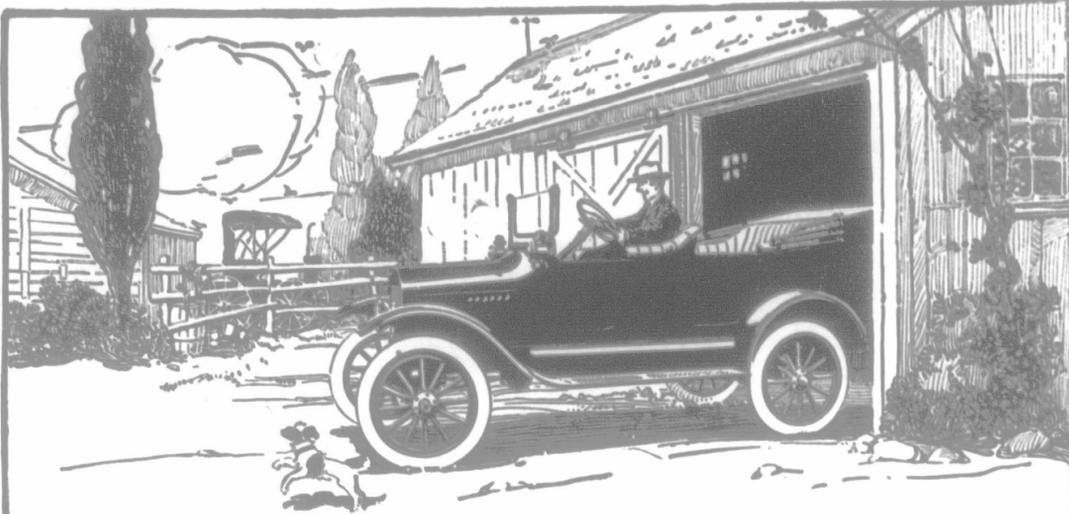
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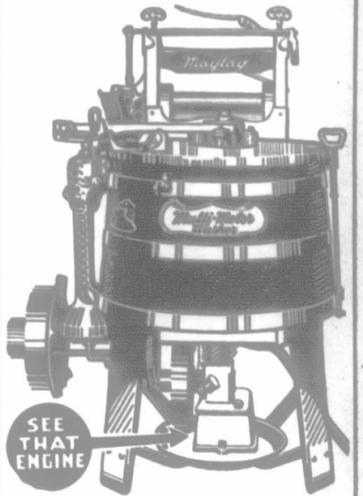
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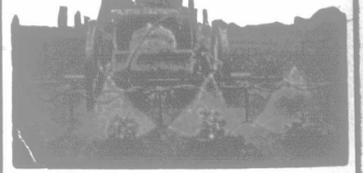
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EDITORIAL

Tap the maples this spring.

Worthless dogs should be taxed or shot out of existence.

Fill up the woodshed and be on the safe side for next winter.

All but a mere handful of Canadians would appreciate a knightless year.

There is a bright future for the breeder of choice, pure-bred stock in Canada.

Old Sol did his best to make the "heatless" days not entirely without heat.

It is time to begin putting implements and machinery in order for spring.

The seed-corn situation is worse than anticipated. Secure your supply and carefully test it.

Many would rather buy coal than cut wood, but most would prefer cutting wood to freezing.

It is said that tractors may be allowed to come into the country duty free. This is a move in the right direction.

German subs succeed in sinking Allied shipping, but they can never cause the spirit of the democratic countries to be submerged.

Many a man has said that he couldn't afford the price of a high-class sire. None can afford to buy a scrub because it takes less money.

Canadian wool growers are keeping abreast of the times when they organize a Dominion-wide selling association. The get-together idea is growing in favor.

We have had a taste of heatless and meatless days. Unless labor is forthcoming in larger supply for the farms we may be called upon to face real eatless days.

There is room in this country for a big national winter live-stock show. Plans should be laid now so that it could be inaugurated as soon as the war is over.

In buying foundation stock more success will follow putting all the money into one or two animals of the right stamp and breeding than by purchasing double the number of an inferior sort.

Reciprocal arrangements re registration of pure-bred live stock, brought about by the breed associations in Canada and the United States, will be a lasting benefit to all concerned and a boost for pure-bred stock.

If you are planning to sell your wool co-operatively make over some old jute bran sacks into wool sacks. Large wool sacks will be scarce this year, and by putting three or four bran sacks together a fairly good-sized wool sack may be made. Be sure the sacks are jute.

An extra run through the fanning mill may increase the yield from the seed by two or three bushels per acre and this after it is fairly clean. The first cleaning, of course, makes a much greater difference than this. Second and even third cleanings pay. Increase production through the use of better seed.

Sheep More Valuable Than Dogs.

We understand that the Act regarding the taxation and status of dogs, and dealing with the remuneration due owners of sheep worried by said dogs, is to come up for revision at the present session of the legislature. At any rate the dog nuisance is still with us, and each year at the annual meetings of the Sheep Breeders' Associations it is discussed at some length, whether on the regular program or not. If the Act is revised, as it should be, the provisions should be made as drastic as possible. A good dog, in his proper place, whether that be as a worker on the farm or as a pet in the house or yard, is a friend which deserves every protection, but the worthless, half-starved mongrel is the enemy of the good dog, of sheep, and so of mankind. The tax on dogs should be raised so high that it would help put the needless canines out of existence. Particularly should this be the case where two or more dogs are kept, and more important still where two or more females of the species are harbored. The new Act should make it law that the owner of pure-bred sheep be allowed full value for sheep destroyed and full damages for those worried in so far as it is possible to ascertain these damages. Getting full value for a grade when the loss is a valuable pure-bred is not enough. To ensure this, arbitrators appointed by the Sheep Breeders' Associations should be called in to act where any dispute occurs re value. Then, too, dog taxes might go into the general fund of the municipality and sheep losses be paid out of the general fund. It might also be good practice to have all dogs tagged as is now done in towns and cities, and make it law that any dog not tied up between sundown and sunrise and running at large on any property other than that of its owner is liable to be destroyed at sight. There should also be some provision made for dealing with unorganized districts in the Province. People living in or adjacent to these should not be placed at a disadvantage in the working out of the Act. Where the owner of a dog cannot pay for sheep his dog has destroyed, some penalty should be applied and the sheep owner reimbursed. Many of these suggestions were brought out at the recent meeting of sheep breeders in Toronto. The Legislature would do well to consider them in the framing of the new Act.

A Dominion Organization of Stock Breeders.

At the live-stock meetings recently held in Toronto the various associations appointed representatives to confer regarding a proposed scheme of formulating a central organization of all the live-stock interests. Matters are continually coming up which require the attention of someone in authority to act for the stock breeders. Only recently, in the matter of proposed freight and passenger rates it was necessary to call a special meeting of stockmen. A central body already appointed would have been in a position to act immediately. As it was a special meeting had to be called on short notice and action taken "off the bat," so to speak. Canada's live-stock industry is a billion-dollar industry. It is big enough to warrant the doing of big things in a big way. When any other industry of anything like this magnitude desires to make representation to the powers that be, it is done through their organization. So should it be with the live-stock breeders. A Central Board should be appointed representative of all the live-stock interests in the country with full power to act. It would definitely represent a big interest and would command respect everywhere. The nearest approach to it so far has been the National Record Board, but this Board has had no authority to act on matters other than those pertaining to the National Live Stock Records. It might be possible to make it a Central Live Stock Board, or it might be possible to select members from the Eastern and Western

Live-Stock Unions to compose the central body. One thing is certain, such a body composed of the right men would be of great value to the industry. Organization should not be deferred. It is time to act now. Select the good men representative of all Canada's live-stock interests.

Is This a Waste of Feed?

A short time ago a prominent Western Ontario farmer drew our attention to what he termed a gross waste which was going on at the Stock Yards where large quantities of feed are fed to pigs immediately before slaughter. It is said to be the common practice to feed wheat to the pigs to be sold "fed and watered," as the market term goes, and the grain simply increases the selling weight of the hogs so fed. The Toronto Mail and Empire recently made the statement that in 1917, at the Union Stock Yards in Toronto, 1,862,000 lbs. of wheat was fed to 294,854 hogs for slaughter. This is over six pounds per hog, which nets the seller of the pigs a considerable profit. He buys his wheat at less than four cents per pound and sells it as pork at from seventeen to nineteen cents per pound, making, possibly, fourteen cents per pound on about six and one-third pounds of wheat, or nearly ninety cents per pig. True, where stock is unsold for some time, or where suffering would come from lack of feed, certain feed should be given, but it does seem unreasonable to cram pigs full of wheat or any other grain for that matter and then slaughter them before said feeding adds any appreciable weight to their carcasses. Tests have shown that this feeding does not give very much more dressed meat than where no feed is given. In a time when wheat and all other cereals are in such demand and food is so scarce in the Allied countries, and high in price here, what reason is there for such waste? Is there any good reason for it at any time? Of course, the drover would carry any loss he would sustain by a removal of the feeding privilege back to the producer and expect to buy with a larger margin, but this would soon be regulated. Hog raisers in the country could use the feed so wasted to much better advantage in their own pens. Good wheat should be banned anyway as a stock-yard feed in a time like this. Has the Food Controller's Department any authority over this particular practice?

The Wool-growers' Organization.

Farmers and stockmen—producers of foodstuffs—those people whom politicians like to call "the backbone of the country," are gradually developing organizations which will ultimately work great good for the agricultural industry of Canada. In the past the men on the land have been what a speaker recently termed "the voiceless multitude." In the future they will be so organized that they will have a voice in the affairs of the nation, and a voice that will speak in no uncertain tone. All any producer of standing asks is fair play, and at last, after it has been brought home in so many ways that without organization a fair deal is almost impossible to procure, men engaged in all branches of farm production are getting together so that when matters of import to them are up for discussion, organized industry will have a voice. A case in point is the formation of the Canadian Co-operative Wool Growers Limited, brought about week before last in Toronto. This new company is to be a selling agency for the wool clip of Canadian sheep whose owners see fit to have it graded as has been done by the Provinces in recent years, and sold according to quality. It is likely that in its first year this Association will handle millions of pounds of wool, and doing business on a large scale it will be in a position to look after the interests of the wool grower as no other association will. It is representative of all the wool-producing provinces. The directorate is composed of men vitally interested in wool

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production. The President is a practical farmer and sheepman. The General Manager is an expert on the production, handling and sale of wool. The wool growers are going to do their own business, which should be good business. They are antagonistic toward no one. They are out for a fair deal for all. They believe in putting up good goods and in satisfying their customers. Success to the new organization. These are big days for organization in the Dominion.

Labor Saving Inventions.

BY SANDY FRASER.

I'll be thinkin' sometimes that the more machines that are invented to save work the more work an' worry we have. It's this business of waterin' the live stock in the winter-time that I'm thinkin' of juist at present, I mind when I wis a wee gaffer it used to be my job to see that the coos got their water ilka day, an' it used to be quite a worry to me too. The first thing wis to gae doon to the creek an' cut twa or three holes in the ice. Generally the holes I cut were big enough for the bossies to get their noses into, an' na mair. Then I wad rin back to the stable an' open up a' the doors to prevent the danger o' a blockade. It wis the auld-fashioned wooden stanchions we had in those days, an' they were held shut an' wooden pins. (There wis lots o' bush at that time, an' pretty near everything we had wis made o' wood.) An' the way I used to let the coos out wis to walk along in front o' them wi' a wooden mallet I had an' gie those pins a crack that sent them oot against the opposite wall. When this wis done it wis me an' the dog for it to see how quick we could land those coos doon at the water-hole. An' that wis all there wis to it sae far as I wis concerned. If ony o' the heifers got tired waitin' for their turn an' came back to the stable wi'oot gettin' a drink, that wis their funeral, not mine. But the point I want to mak' is that there wasn't vera muckle worry or trouble about it all, an' ye could aye depend on gettin' yer stock watered some way or ither if ye cut the ice.

But I wisna' a'thegither satisfied wi' this way o' doing things, so one fall I rigged up a pump in the stable sae that I could draw the water frae the creek an' rin it in pipes in front o' the coos an' sae get rid o' the necessity o' lettin' them oot ilka day for a drink. It warked pretty weel for a while. At least the bossies thought so on the days that were cauld an' stormy, an' they

used to keep on drinkin' till I would be well nigh played oot pumpin' to them. An' once in a while something wad go wrang wi' the pump. The leather on the plunger wad get worn oot, or if it wisna' that it wad be something else, an' it seemed tae me that I wis spendin' maist o' my time either repairin' the pump or workin' the handle. I used to wonder sometimes if the auld way o' lettin' them drink oot o' a hole cut in the ice wasn't a pretty guid scheme after all. But it would hardly look well to gae back to that again, sae I says to mysel, "I'll juist pit in a wee gasoline engine to do my pumpin' for me an' my troubles will be at an end." So I paid oot mair than a hundred dollars o' real money to a chap, who, I'm thinkin', wouldna' want me to mention his name, an' in twa or three weeks I had my pumpin' rig all ready for business. The agent that pit it in for me started up the engine an' it got doon to wark in good shape. But no sooner had it got him oot o' sight than it quit. An' not anither grunt could I get out o' it. I got the agent back again, but it looked as though it wis a thirty-day strike it wis on, for he couldna' bring it to terms ony mair than mysel'. So the upshot o' the thing wis that we had to tak' the engine oot an' send it back to the factory where it wis made, in the hope that a change o' air an' scenery would hae a guid effect on its general condition. It came back after a few weeks, lookin' none the worse for its trip, an' wi' the exception o' an occasional half holiday that it takes, I hae managed to keep it going ever since. But it's something like the cream separator that belonged to a friend o' mine. Says he, "Ye've got to treat her like a lady or she'll no' do much for ye." He wis something like mysel' for a while, wonderin' if the auld way wasn't the best after all.

I heard a story juist the ither day about a couple o' boys that got this same idea o' savin' themselves wark. They live on a farm an' are kind o' distant relations o' my ain, so I willna' be mentioning ony names. They kept quite a stock o' cattle an' the twa boys had to dae maist o' the wark, for their feyther wis gettin' pretty weel up in years an' stayed pretty close to the stove in the winter-time. One day one o' the boys, who wis better at inventin' plans to get oot o' wark than he wis at onything else, got it intae his head that they ought to hae some sort o' a pumpin' outfit that wad do away wi' sae muckle hand wark. Sae between them the twa boys got the auld mon coaxed into payin' for the pump an' tank an' pipes that were needed, an' wi' the help o' a plumber frae the toon they soon had their waterworks ready for business. They had an auld tread-power on the place that had been used to rin a small threshing outfit an' it wis their idea to put their big Holstein bull on this an' make him do the pumpin'. He wis pretty cross, was the auld bull, but wi' a little care an' perseverance they made oot to get him up on the power an' once there he had no choice but to keep walkin'. The scheme seemed to be pannin' oot all right an' the boys got at last that they would leave the auld bull alone on the job an' go about the ither wark they had to attend to. One night after the chores were done they noticed that the tank was empty. They had been thinkin' o' going over to the next neighbors for a game o' cards that evening, sae one o' them says tae the ither, "Let's put Jumbo on the power an' then we can go across an' hae a round at the cards while he's filling the tank. Then I'll come back an' shut the thing off." So they weren't lang gettin' the bull on the power, an' when everything was going well they struck oot for the neighbors'. This part o' the country wis no' quite so dry then as it is at present, an' some people still had the habit o' giving their friends, that dropped in tae see them, what they called "a Highland welcome." Sae it happened that oor boys soon forgot all about the auld bull on the power, an' when they started for hame it took all the memory they had left to get them safely tae their beds. The auld mon had to gie them an extra call or twa the next morning to get them roosed up, but when he did the first thing they thought about wis the bull an' the water tank in the stable. Before they got oot they could hear the tread-power still going an' they could hear the coos bawling as weel. They knew what to expect sae there wisna' a word when they found the coos all standin' in water up to their knees an' shivering tae keep themselves warm. Two calves that were in a box-stall, a wee bit lower than the rest o' the stable, were drowned. It didna' tak' lang to stop the power an' get the bull back to his stall. An' the crossness was pretty well oot o' him, I can tell ye. But before the boys got the last o' that water bailed an' shoveled oot o' the stable they were about as sick o' labor-saving inventions as I wis mysel' when I wis warkin' wi' my wee gasoline engine. However, they had the experience an' no doot it wis worth money to them. On the whole I dinna' ken but it's as well for us to mak' use o' all the labor-savin' machinery that comes oor way, even though it does mak' an unco' extra amount o' wark for a man that's maybe all alone on the job.

Every farmer and live-stock breeder hopes that the proposed central organization representative of all Canada's live-stock interests soon materializes. A billion-dollar industry well organized could get justice by the shortest route.

Farm survey work has had a good start in Ontario. May it be speedily extended, and out of it may there grow many valuable ideas re farm management. This is one of the biggest branches of the production game at the present time.

Nature's Diary.

A. B. KLUGH, M.A.

Canada from Ocean to Ocean—VIII.

If we continue our journey northward through the Barren-grounds we come out on the shores of the Arctic Ocean, and here we find several characteristic forms of animal life—The Polar Bear, Seals, the Walrus, the Arctic Fox and the Polar Hare.

The Polar Bear is a ranger of the shores of the Arctic seas. Its favorite hunting-grounds are along the edge of the ice-fields, where the drifting floes grind against the fixed ice of the shore-line and split with the heaving of the ocean. Here it watches for seals at their breathing holes, as patiently as a cat watches for mice, or stalks them under cover of the ice-cakes at the edge of the breakers. If it discovers a seal resting on the ice where there is small chance of creeping on it undetected it plunges into the sea and approaches by swimming under water.

Anything edible that floats or is cast ashore is its food, a dead whale or a herring being alike acceptable.

The Polar Bear is a powerful swimmer and an expert diver, and is able to dive and swim under water for considerable distances.

It is only the adult males which remain out and about through the long, dreary, Arctic winter. In the autumn when the snow storms become heavy and frequent the females look for some protected place in which to pass the winter. Speaking of the she bears at this time Stone says: "Under the projecting shelf of a ledge and between neighboring rocks are favorite winter dens of theirs. Sometimes one will dig a cave for herself in a snowdrift, or curling up in the cleft of a rock, she lets the snow bury her as it will, the one object in any case being to have plenty of snow piled above her for protection against the coming winter. In these northern latitudes the summers are far too short for a young bear to gain sufficient strength for withstanding the hardships of the rough winter that closes in so early. The young Polar Bears are born after the mother has buried herself for the winter, and for months she hibernates there under the snow with only a slender breathing shaft kept open by the warmth that rises from her body. For the entire winter the cubs draw their nourishment from her and grow strong and lusty, while she, being without food of any sort becomes lean and gaunt before the late spring releases them from their prison. In the latter part of the winter the cave is gradually enlarged by their breathing and the warmth from their bodies, which melts away the snow around them, until finally they succeed in breaking a passage and coming out into the flat rays of the sun. There are now great companies of wild fowl and sea-birds gathering to nest among the cliffs and seals with their young on the ice, so the old bear has a good chance to recuperate her strength and teach her cubs to hunt and fish for themselves."

The Walrus is a heavy, clumsy, ungainly beast which gets its food by digging with its huge tusks in the mud beneath comparatively shallow water, grubbing up shellfish and other forms of marine life. Sea-weeds are also eaten in considerable quantities, and these together with starfish, sea-urchins, sea-anemones and mollusks are gathered in and ground up between the molars that crush the heaviest shell without much effort. They are often seen in large herds, lounging about on the shore, lying one across the other like swine, all roaring and grunting together. The young are born in early summer at which time the adults often go for weeks without either eating or entering the water.

The Arctic Fox in summer is brownish above and whitish beneath, while in winter it is pure white. These little foxes live in communities, digging twenty or thirty burrows together in places where the soil is light and sandy. In summer their food of lemmings, wild fowl and ptarmigan is plentiful, and they apparently realize that they must make the most of this brief season of abundance, for not only do they hunt for their immediate needs but they lay up a supply of lemmings. They bring home load after load of lemmings, dig down in the moist turf until they reach the frost-line, pack the lemmings away in cold-storage and cover them with moss and sods. They do not seem to lay up a supply for their families, as it is pretty well attested that the young foxes of the year travel southward as the winter advances, killing their meat from day to day, and then as the daylight lengthens they turn back to join the old foxes once more and to lay up their own supply against the next winter.

The Polar Hare is about twenty-three inches in length, and its somewhat curly coat is white at all seasons, except the tips of the ears, which are blackish. Its home is a hole dug in a snowdrift or a cranny in some outcropping ledge of rock, and its food consists of stone-worts and lichens and the twigs of the dwarfed arctic plants.

Many species of birds breed in these far northern regions, among them the Black-throated Loon, Red-throated Loon, Ivory Gull, Kittiwake, Glaucus Gull, Arctic Tern, Buffle-head, Old Squaw Duck, King Eider, Greater Snow Goose, Hutchin's Goose, Brant, Lapland Longspur, and Hoary Red-poll. As may be seen from a glance at this list most of these are water-birds, and the great host of these birds which in summer congregate along the shores is one of the characteristic sights of the Arctic regions.



With the Colts and Calves at Pasture.

THE HORSE.

Punctured Wounds.

Punctured wounds are produced by penetration into the tissues of a sharp or blunt pointed instrument, usually to a depth disproportionate to the aperture of entrance; that is, the opening made through the skin is usually small in proportion to the extent of the wound to the underlying tissues. Punctured wounds are the most dangerous of all wounds, as from their depth they are liable to implicate arteries, nerves, veins, internal organs, and deep-seated vital parts; the parts which they traverse are stretched and torn, and consequently are prone to inflammation and suppuration, and pus, when formed, often has no free access as the seat of pus formation is on a lower level than the external wound, thus forming a pocket or sac which holds the pus, which is liable to burrow extensively; also, foreign bodies may be carried to great depths without being suspected, and create long-continued irritation; and wounds of this nature are more liable to be followed by serious complications or disease than wounds of other classes.

Treatment.—The treatment of punctured wounds must be conducted in accordance with the gravity and depth of the puncture, and the amount of laceration and contusion. If the wound be shallow, attended with little or no bruising or laceration, and free from foreign matter, treatment is comparatively simple. The patient should be given rest, the usual constitutional treatment given, viz., the administration of a laxative and reduction in the amount of grain given, (provided he has been working and fed grain.) It is wise in most cases, to feed bran in lieu of grain. The wound should be kept clean by washing and flushing it three times daily with an antiseptic, as a five per cent. solution of one of the coal-tar antiseptics, or carbolic acid. Rest and treatment should continue until the parts have healed. In cases where bleeding is profuse it must be checked. If an examination reveals probability of the wounded vessel being secured, the operator is justified in enlarging the external opening to make room, securing the vessel and ligaturing it, as in incised wounds. Where this cannot be done the wound should be firmly packed with absorbent cotton or other clean material that has been soaked in one of the already mentioned antiseptics. The packing must be retained in the wound by a bandage or by suturing. In the course of twelve to eighteen hours the packing should be removed, and the wound explored to as great an extent as possible. A careful search for foreign bodies must be made, and if any be located they must be removed, even though this may necessitate the enlargement of the wound, or the making of another. The operator must determine whether or not the wound in the deep-seated structures has penetrated to a deeper level than the external opening, and if it has he must either enlarge the external wound and that of the deeper structures until there is no pocket left in which pus or serum or both may lodge. If it be found that it would be better practice to make a counter opening through the tissues to the seat of the lowest part of the wound in order to give drainage, of course, this should be done. All tissue that are torn, lacerated, or bruised to such a degree that there is no reasonable prospect of union or repair, should be removed, the wound then flushed out with an antiseptic to remove all blood clots, dirt, sand, etc., and the flushing repeated three times daily until the wound is healed. The patient should be made as comfortable as possible and the usual constitutional treatment given. In rare cases the patient suffers acutely. In such cases pain should be relieved by administering about 1½ ounces each of tincture of belladonna and sweet spirits of nitre in a pint of cold water, or one ounce chloral hydrate in solution. This can be repeated every four or five hours as the symptoms indicate. If the puncture be in such a position as to cause excessive lameness, and inability to lie down, or to rise after he has done so, the patient should be put in a sling.

Fungous protrusions or excessive granulations, commonly called proud flesh on the surface of the wound in most cases are the tissues of the part, swollen and congested, and will disappear when the inflammation subsides; hence, it is unwise to excise them or endeavor to remove them by the application of caustics. If, however, after the inflammation has been subdued, these exuberant granulations continue in the wound, they should be destroyed and the tissues stimulated to healthy action by applying a little butter of antimony once daily with a feather or by being touched once daily with a pencil of the nitrate of silver. In some cases, owing to debility of constitution, these granulations continue as flabby, pale-looking excrescences, notwithstanding efforts to repress them, and discharge a somewhat dirty looking fluid or semi-fluid. In such cases the general constitution should be attended to by administering tonics and alteratives as a dram each of sulphate of iron, gentian and ginger and six grains of arsenic three times daily for a week or ten days, and in the meantime attend to the wound locally, as above. When the general health of the animal is good and the treatment proper, the cause of the continuance of proud flesh depends upon the presence of some foreign body in the wound, which must be located and removed in order to make complete recovery possible. **WHIP.**

LIVE STOCK.

Our Scottish Letter.

Fully two months have passed since I last wrote, and in the interval I have again been in the surgeon's hands and undergone a severe operation. That I am now resuming correspondence may be taken as an index of returning health and strength. These two months have been eventful enough. They have witnessed amongst us here several new phases of Food Control, as well as other significant indications of the stringency of the War situation. The call for additional men at once to the number of from 420,000 to 450,000 is in itself a strong reminder that Great Britain is face to face with an unprecedented condition of things. These men are to be found in what have hitherto been regarded as "protected industries," and there is just the fear that Agriculture is one of these. Certain it is that the Food problem is to be a big factor in determining the final issue. A prominent member of the Government addressing English farmers at Chelmsford the other day said the War would be won not by a smashing victory on either side but by those who had the last sack of wheat and the last stone of meat. The Food Controller has also been speaking, and has made it known that while there is a scarcity of essential foodstuffs there is no risk of famine in these islands, provided every one acts patriotically and eats only what he or she needs to eat. It has been made known very generally that in the Munition areas this has not during recent months been

done. On the contrary in these areas there has, during the past months, been an excess consumption of meat. The normal quantities in peace times have been greatly exceeded, and it is melancholy to think this should be so after all and in spite of all the urgency that has been manifested to an opposite effect. It has been said that now that America has come into the war men, money, munitions, moral and time are all in favor of the Allies. The one thing that is doubtful is food, and hence the strenuous appeals addressed to farmers to increase the area of cropping for essential foods like grain, potatoes and milk. Scotland is asked to increase its area under crop by 300,000 acres over the average of 1917. This is a large demand, but right-hearted men will do their best to respond and meet it. There is a section of grumblers and critics who are never satisfied with anything those in authority do. It must be admitted that these persons have made serious blunders, but destructive criticism helps very little. What is wanted is constructive criticism. The actual position regarding meat is that according to the December census there is only about a 50 per cent. supply in the country. Consequently, in order to secure that this quantity may be distributed equally we have a Fat Cattle Control Order which came into force on 27th December, and a Fat Sheep Control Order which came into force on 14th January. The design of both is to share what beef and mutton the country can produce as fairly as possible among all sections of the community. The cattle and sheep presented in the fat markets are graded by committees of three—a butcher, a farmer and an auctioneer. There is a top price of 75s. per live cwt. of 112 lbs. for the cattle placed in the first class, and 70s. for those graded second class. On the whole the scheme has worked fairly well except in Smithfield market, London, where, for some reason or other, there have been almost no supplies to speak of since the grading scheme came into force. Seeing the Committees have power to requisition cattle this is rather inexplicable, and suggests that there has been some breakdown in the scheme.

Feeding Stuffs are now also controlled, but unfortunately the supplies are very short. When Lord Rhondda intimated that this control would be enforced he indicated that while everything would be done to secure an equable distribution he could not guarantee supplies. He does not control shipping, and whatever else may fail, it is absolutely essential that tonnage should be utilized to the best advantage to win the war. Happily the 1917 crop of roots was abundant, and there is also plenty of straw in the country. Roots and straw alone will not make cattle prime fat, but they will keep them thriving, and in these days, as one has put it, the farmer must endeavor to utilize what he can get to the best advantage rather than cry out for what he was accustomed to have.

Meantime live stock of all kinds are making unprecedented prices. In these winter months the practice has grown among breeders of Ayrshire cattle of selling their young bulls, i. e., the bulls calved during the past season. These sales are held at the homesteads and have proved to be highly popular. The most successful of all so far was held at the farm of Netherton, Newton-Mearns, near to Glasgow, in the last week of December. This farm is owned by Messrs. T. & A. Clement, the well-known produce brokers who have many friends in Canada. They have always been keen admirers of the Ayrshire breed, and have built up a Milk-Record herd of unusual excellence. They have held sales for several years past, and have always been keen buyers at other sales of animals possessing superior individual merit and of milk record descent that should insure continuity. At their recent sale they reaped their reward, securing individual prices and an average overhead which fairly broke all previous records in the Ayrshire breed. They sold 21 bull calves or stirks, i. e., calved in 1917, at an average of £115 13s. 0d. each. They had individual prices like 430 guineas or £451 10s., 370 guineas or £315, 255 guineas or £267 15s., and 200 guineas or £210. The previous best average for Ayrshire bull calves was made at the Bargauch sale in Ayrshire in the late winter of 1916, when 17 head made an average of £91 10s. 3d. Other two sales have been held since I last wrote. At Finlayston in Ochiltree parish Mr. Wilson had an average of £36 16s. 3d. for 17 head, and on Thursday last at Dunlop Place, Mrs. Howison-Crawford had an average of £57 2s. for 21 head. A very notable sale yet to come is that of James Howie, at Hillhouse, Kilmarnock. It takes place in a



A Type that Is in Demand in Britain.

week or two. The system of milk records, which has now been in vogue in the Southwest of Scotland for more than a dozen years, has been the main factor in the rapid development of the Ayrshire breed. The breed is being reared on strictly utilitarian principles, but symmetry and good looks are not being sacrificed.

In the Clydesdale world by far the most notable event is the announcement of the retirement from the stallion-owning and export trade of William Montgomery, Banks, Kirkcudbright, and the consequent dissolution of the world-famed firm of A. & W. Montgomery, Netherhall, and Banks, Kirkcudbright. William Montgomery has been in the trade well nigh 40 years. His name first appears in the records of the Highland and Agricultural Society as an exhibitor at the Dumfries show of 1878. His exhibit on that occasion was a yearling filly by Darnley, which afterwards became known to fame as Provost Waddell's Louisa. His brother, the late Andrew Montgomery, on the same day, showed another yearling filly named Jeanie Sproat by Dandy Jim 221. She was placed first and Louisa was placed second. In 1879 Andrew Montgomery purchased Macgregor 1487 as a yearling colt for £65, and therewith for at least a dozen years or more (indeed for about 20 years) made Clydesdale history. In 1894 William Montgomery purchased Baron's Pride 9122 for rather a different figure, and at the H. and A. S. show at Aberdeen in that year the horse was champion stallion. As the world knows he also made Clydesdale history, and his descendants to-day dominate the Clydesdale world. The partnership between the two brothers, Andrew and William Montgomery, was formed in the later eighties, and it continued until the death of the older brother in the early months of 1912. A partnership was then formed between William Montgomery and his nephew Andrew Mitchell Montgomery of Netherhall, the period of which was six years. William is taking advantage of the expiry of this period to retire and his share of the hired stallions and probably one or two others, three years old and upwards, numbering in all about 25 head, will be sold at Lanark on Tuesday, 5th March, the buyers being held bound to fulfil the engagements of each horse. The half of the younger stock in the stud which fall to William Montgomery will be sold at a later date, in all probability in October. Few men having their homes on this side of the Atlantic are better known in Canada than William Montgomery, and the announcement of his intention to retire from the business with which he has been so long identified will be received with interest everywhere, and with deep regret on the part of all who know him personally. The date chosen for the sale of stallions, Tuesday, 5th March, is the day preceding the Scottish Stallion Show at Glasgow. The sale will be conducted by Messrs. Lawrie & Symington (Ltd.), the well known live-stock salesmen, and will be absolutely without reserve. Nothing will be sold on that date but William Montgomery's horses. These are not days when men care to make Atlantic voyages, but doubtless some will be present from Canada and the States on an occasion so historical as the dispersion of one-half of the Netherhall and Banks Clydesdale stud.

An interesting departure was recently taken by some department of our Government. A deputation of British farmers was sent over to view the war-desolated portions of Northern France. The deputation, on which four well-known Scottish agriculturists found a place, left on New Year's Day and have safely returned. They saw for themselves what war means in an agricultural area. I suppose it would be correct to say that it beggars description. The area seen is or was rich in agricultural resources, like the best land in Scotland, and it has been converted into a region as barren and desolate as the poorest moorland in Scotland. That it can ever be restored to a sound agricultural state, save at enormous cost in manual labor, seems rather doubtful. The exact purpose of the visit of this deputation to France under existing conditions has not transpired, but if it serves no other end than enabling British farmers to testify to their fellows from personal observation what War actually means, it will have served a good end. Too many fail to realize what invasion by a hostile force really means. This country has enjoyed such a long immunity from war experiences at first hand that even tradition fails to convey any adequate idea to our minds. First-hand impressions on practical agriculturists should, therefore, be invaluable, and probably more will be heard of these impressions.

I do not know whether I referred in my last letter to the trials of motor tractors and ploughs conducted by the Highland and Agricultural Society at three centres in the beginning of November. The official report on these trials has now been published and makes useful and instructive reading. The Society did not offer prizes. The trials were not competitive, and the official report offers us comments which would indicate the preferences of the reporters. This does not detract from the value of the report. Everyone who witnessed the trials was impressed by the immense progress made in the two years which had elapsed since trials took place at Stirling and Inverness. It is hardly possible to believe that such adaptability to Scottish necessities should have been exhibited under War conditions by makers overseas, for, of course, War conditions rendered it impossible for home manufacturers to take any but a very small part in the trials. Among other notable advances is recognition of the fact that mere weight of tractor is not an advantage. The reporters say that the weight need not exceed 30 cwt. of 112 lbs. each, and the price should not exceed £300. The minimum power required is 20 Brake Horse Power. This will enable a tractor to draw a two-furrow plough under the worst conditions, and a three-furrow plough under the best conditions.

Interest is being taken in the future of land legislation. There is a strong disposition to arrive at a sound, economic policy by agreement, and the Secretary for Scotland has made himself responsible for an effort to bring together landed proprietors, representatives of the farming interest, and supporters of the effort to settle men on small holdings, so that legislation which promises success on economic lines may be hopefully prosecuted. The legislation of 1911 has admittedly been a failure. This result is due to causes which I need not expand here. Briefly that legislation allowed a landlord to claim heavy damages from the Board of Agriculture on the ground that the settlement of small holders impaired the amenity of his residence or lowered the value of an estate as a sporting property. Arbiters with this claim before them have awarded such heavy damages against the Board that settlement on the land under the conditions created has been rendered economically impossible. But the exigencies of War have taught us

the necessity for peopling the land and the duty of the State to the men who have fought for us. Many of these at the close of the War will want to return to the land, and they should be encouraged by every legitimate means to do so. Afforestation is recognized as a legitimate accompaniment of land settlement, and Scotland is said to contain more than double the area of land suitable for afforestation to be found in England and Ireland put together. Obviously, therefore, afforestation is a Scottish subject, and it is undoubtedly a matter for the State and not for individual enterprise. If only we could all get rid of prepossessions and prejudices and address ourselves to the problems of the hour, the colonization of the waste places of Scotland might be entered upon with hope. But a root principle must be that Agriculture shall never be subordinated to Sport, as it has too much been in the past.

SCOTLAND YET.

Our National Live Stock Records.

In practically every country of the world where live stock is recognized as the vital factor in its agriculture, there is some established system to guard the purity of blood and see to it that the advantages which accrue from Nature's observance of hereditary laws are not overlooked or wilfully ignored. If the authorities of a commonwealth are still blind to the importance of agriculture, or if the paramount influence of live stock as a factor in that agriculture has not yet been revealed to them their system of registration may be very crude, such as our own was less than half a century ago. On the other hand a number of progressive nations have perfected their records to such an extent that the validity and bona fide character of the same meet with international recognition. This has made it possible to transport pedigreed animals from one country to another for the purpose of improving present stocks, either grade or pure-bred. With no assurance, such as a certificate of registration provides, one might purchase a good individual, only to find, through the peculiar operations of Nature's laws, that the offspring "reverted" to something very undesirable, buried forever in the past of an unpedigreed sire or dam. It is not the purpose of this article to champion or defend pure-bred live stock or to explain the registration of same in different countries. We only wish to draw the attention of our readers to the Canadian National Live Stock Records as something of which they may be proud, something which they should patronize, and something which they, as Canadians, should respect and support.

Some farmers are apparently afraid of a pedigree or certificate of registration, and would expect some ill to befall their homes if they should keep such a document in the house. It has also come to pass in certain districts that pedigreed animals, purchased perhaps as a start, failed to measure up to expectations, whereupon the whole neighborhood have unanimously condemned the pure-bred stock industry in general and the breeders in particular. In spite of these exceptions to the universally expressed approval of the pure-bred, it has found its way, accompanied by its pedigree, into the new districts, and there it will do for the settler and rancher what it has already done in the older portions of the country. At Ottawa is located the machinery upon which the whole industry depends, namely, the National Live Stock Records.

Brief History of Registration in Canada.

As early as 1853 the Agriculture and Arts Association of Ontario conceived the idea of doubling the premium given at the Provincial Exhibition on any female, and trebling the amount won by any male animal imported during the year. This practice led to an appreciation of the fact that some record should be kept of the breeding of improved stock, so a register was opened at the office of the Board in Toronto, where breeders might register their animals. This was the beginning, in Canada, of any system for the registration of pure-bred stock, and out of it grew through various stages of development the more elaborate system of the present.

After the initial effort on the part of the Agriculture and Arts Association of Ontario to institute records, several breed associations were formed and these maintained their own registers in different parts of the Dominion. In some cases, too, these were only provincial in scope, making several registers for the same breed with different standards for registration. Inter-provincial trade was thus badly handicapped, and the necessity of some unified system became apparent. Breeders began to agitate for government legislation providing for the incorporation of the Live Stock Record Associations. Such a bill was introduced in 1901, and was known as the Live Stock Pedigree Act. In 1904 a national convention of breeders was called by the Dominion Minister of Agriculture and the National Live Stock Association was formed. In April of 1915 an agreement was reached, and the National Record Board was formed.

Present System of Control.

The Canadian National Live Stock Records are so operated as to leave the control in the hands of the breeders, while the Government stands behind every certificate of registration. At first sight this may appear hazardous to the Government, but the constitution adopted by every breed association must be approved by the Minister of Agriculture, and every change in constitution must receive his sanction. The breed association sends its delegates to the Record Board, which is made up of representatives from all the as-

sociations, elected on the basis of two persons for every one hundred members or under, and one additional representative for each subsequent five hundred members. The breeders in the annual meetings of their associations enact such laws in regard to registration, etc., as they see fit, so long as such rules conform with the requirements of the constitution, and these recommendations are passed on to their representatives on the Record Board. The latter body now numbers something over fifty delegates, and it is necessary to vest authority in a smaller unit. The next step in condensation is the Record Committee, made up of one representative for each of the following: Heavy Horses, Light Horses, Beef Cattle, Dairy Cattle, Sheep, Swine. The Chairman of the Record Board is also Chairman of this unit which, with a Secretary-Treasurer, make up the Record Committee. These in turn place an Accountant in charge of the office staff and equipment, and he has full supervision over the matter of registrations and business, being responsible, of course, to the Record Committee. At one time the registrars were responsible to the breed associations, whose applications for registration they were employed to handle, but this system was not found conducive to efficiency. Responsibility now leads back to the individual breeder through the following steps: Registrars, Accountant, Record Committee, Record Board, Record or Breed Association.

The Dominion Department of Agriculture maintains a paternal oversight of the registrations and guarantees the accuracy of the work of the Record Office.

The Canadian National Live Stock Records are unique in their democratic organization coupled with government support and guarantee. No other country in the world, unless it be South Africa, can boast of any higher standards which must be lived up to than those set before our own record administration. A constitution and rules, which the Record Board, Committee or Accountant have no power to alter, are there to guide in all matters, and for the enactment of these rules or laws the breeders are responsible.

The Breeders' Duty.

In any country, under any system of administration, honesty on the part of the breeder is the basic principle upon which the success of the records must depend. No method of recording pedigrees is yet extant that precludes absolutely the danger from falsified reports. Some records are looser than others, but in this respect the Canadian office has an enviable reputation for the exactness it demands on the part of applicants, and for the difficulty it places in the way of any suspicious pedigrees becoming recorded in the registers of the various associations. This condition of affairs, no doubt, leads some breeders to patronize records outside this country, but in doing so they are adding nothing to the prestige of their flocks or herds. Again, some breeders claim to find that trade with the United States is facilitated by having their stock recorded in that country; while, on the other hand, those who make it a practice to record strictly in Canada declare that they have not suffered thereby. Canadian breeders are, as a duty to their own institutions, doing the right thing by patronizing the Canadian records.

Some complaints have been heard of late years in regard to the time required to get replies from Ottawa. The Accountant in regard to this said in an interview that it is very difficult to hold a complete trained staff together since the war began, and that during rush times it is not possible to give the service for which the Canadian National Records were once noted. A clerk or member of the record staff is an individual trained especially in a particular kind of work; help cannot be drawn from schools, other offices or professions. They must be trained in the Record Office. It was also stated that 50 per cent. of the applications received had to be returned on account of errors or for further information. The breeders neglect to fill out the forms completely and delay results. Furthermore, people, as a rule, don't ask for a thing till they want it, and then they want it right away. It was recommended that young stock be recorded early. This would facilitate the work of the office, and breeders would find that certificates of registration would help to sell the young stuff offered for sale. More care taken with the private records at home would assist those on the outside to fill in their application forms, with greater accuracy; this, in turn, would result in more prompt replies and greater satisfaction to all concerned.

Growth of the Industry.

As an evidence of the growth of the live-stock in-

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Shorthorn.....	
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Hereford.....	
Swine.....	
Clydesdale.....	
Hackney.....	
Shire.....	
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Jersey.....	
Red Polled.....	
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Development During a Five-Year Period.

Association	Pedigrees Recorded					Transfers Recorded				
	1912	1913	1914	1915	1916	1912	1913	1914	1915	1916
Shorthorn.....	6681	9173	10186	11135	14333	2763	3647	5813	5063	6987
Ayrshire.....	3111	3629	3496	3682	4000	1487	1418	1364	1407	1976
Hereford.....	1707	1820	2543	2147	3207	301	634	869	769	1087
Swine.....	6802	11509	14441	9718	13594	744	1231	1916	1507	3493
Clydesdale.....	4065	3678	2900	2555	3132	2859	3616	2773	2255	3266
Hackney.....	144	167	101	128	94	120	162	129	142	132
Shire.....	190	274	135	93	121	100	149	93	79	107
Thoroughbred.....	134	313	194	219	151	37	70	69	59	91
Sheep.....	3981	3934	4826	6019	7958	688	645	1372	1376	2509
Aberdeen Angus.....	946	1010	1541	1255	1431	334	652	761	797	1103
Galloway.....	72	23	91	63	30	24	6	7	22	45
Jersey.....	850	1135	1215	1065	1308	321	675	732	887	1014
Red Polled.....	268	459	102	80	477	29	24	37	45	52
Guernsey.....	206	87	154	230	146	39	48	35	39	88
Canadian Cattle.....	323	341	338	319	268	126	86	117	124	141
Canadian Horses.....	383	96	53	85	64	28	24	15	51	30
Pony.....	78	329	228	67	69	43	15	25	31	32
Belgian.....	142	106	132	76	131	81	92	83	96	94
Percheron.....	1580	1560	962	825	1323	313	556	486	493	642
Suffolk.....	51	86	31	35	28	6	18	29	13	32
French Coach.....	22	6	19	10	7	.....	8	5	14	10
Standard-Bred.....	358	560	361	319	382	17	93	164	157	192
Brown Swiss.....	.....	.....	.....	432	270	.....	.....	.....	4	23
Dogs.....	.....	.....	.....	877	1542	.....	.....	.....	183	1224
Record Com.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	32094	40295	44049	41434	54066	10460	13869	16894	15613	24370

dustry during the five-year period ending with 1916, and to show the value of business conducted by the Record Office, we reproduce the above table taken from the last report of the Record Committee. This is a comparative statement for the years 1912, 1913, 1914, 1915 and 1916, showing pedigrees and transfers recorded.

During the period covered by the accompanying table the receipts at the office rose from \$57,545.25 to \$92,328.43, and this increased to \$110,524 in 1917.

Get Acquainted With Record Work.

We do not propose to champion the Canadian National Live Stock Records, nor has this article been written to laud the system in any way. However, for the good of the industry we should like to see breeders better acquainted with our national records. The Holstein-Friesian Association of Canada has remained aloof and has conducted a satisfactory register of its own. Wherever the records are kept get acquainted with them; keep accurate private records, and fill in all application forms with accuracy and in detail. Don't neglect to make all transfers promptly; a good deal of trouble arises annually over the simple matter of transfers. A letter addressed to John W. Brant, Accountant, National Live Stock Records, Ottawa, will bring all information concerning the registration of animals. A pedigree is not a mysterious thing at all. The breeder one knows the methods of recording and what registration means the more they will appreciate pure-bred stock and the laws of heredity upon which all is based.

Co-operative Cars.

For the convenience of a number of breeders shipping a few head of stock Westward, co-operative cars have been run for a number of years, and this convenience is appreciated by the breeders. In 1908, 125 head were shipped in these cars; in 1912, the number had increased to 140; by 1916, it had reached 366, and last year it was 550. This shows the increase in trade. Of this latter number 70 head were horses, of which 55 were Clydesdales; 269 were cattle; 196 sheep and 15 hogs. Recently arrangements have been made to run co-operative cars East as far as St. Johns.

THE FARM.

Short Course Work in Agriculture in British Columbia.

The first short course in Agronomy and Animal Husbandry at the University of British Columbia closed January 18th. The course proved an unqualified success. There were in attendance ninety-one men of all ages from all parts of the province. The local military convalescent hospitals contributed forty-three men to the roll of the course. Forty-six farmers and farmer's sons and two women were regularly in attendance. Leading farmers from Golden, Kelowna, Penticton, Kamloops, Chilliwack, Ladner, Matsqui, Comox, Duncan, Cheslatta Lake and practically every other good farming section in British Columbia were enrolled. The interest and appreciation of all those in attendance has amply proven the need and value of just such work and demonstrates the large place which the Agricultural College has to fill in the Province of British Columbia.

Getting Grumpy at the Government.

EDITOR "THE FARMER'S ADVOCATE":

The farmers have to thank you for another good article in their behalf in "Fair Play for All in 1918." It is to be regretted that other farm papers as a rule are not championing the farmer's side, but are siding with the multitude and loudly admonishing the farmer to produce without any regard as to whether he makes or loses in the operation. If the farmer is to continue producing he must live and have a slight balance to the good.

In the same issue Mr. McElroy quotes Prof. Day as saying that the farmers are prejudiced and unbusiness-like individuals. Yes, that is so, or we would demand as large a spread in the hog business as the packers are allowed. When we ask for a guaranteed price for bacon hogs we are told that prices will be high because the United States have guaranteed prices to their farmers. How long are we to be tied to the tail of the U. S.? Are we never going to branch out for ourselves? Why does

not our Agricultural Department guarantee a price? Is it because they know that we are so unbusinesslike that we will fall for anything? The latest is that they have induced the patriotic banker to lend money to the poor farmer, incidentally, at a good rate of interest and gilt-edged security. The farmer takes all the risk for the banker must live you know.

Why don't they put some of their own good money into the venture, or is the real reason that there is not sufficient money in the venture to tempt these patriotic gentlemen?

And now in war time we are following another United States "Will of the Wisp," and the Government is sending out young men, who should be at the front or producing foodstuffs, around among the farmers to find out if they are making too much money. Surely the depopulation of the country districts and the reduction of production should disprove this. Why not rent farms, of which there are thousands to be had at low rental, and let these men serve the double purpose of producing a revenue for the Government and showing the unbusinesslike farmers how to make money farming? Is it because it is easier to give "hot air" than produce the goods? It would be ludicrous if it were not so serious, as the farmer is doing all that is possible without going to more expense, and if he hires additional men and goes to other expense in increasing his business he is doubtful of the future.

Every town has vacant stables, exhibition buildings, skating rinks, drill halls, storage buildings, etc., which could be fitted up for hogs. Feed would be delivered free by dealers without the long haul that the farmer has to make. Let the Government, or the patriotic gentlemen who are anxious to lend money to the farmer, risk some of their own money in producing bacon. There should be from 500 to 5,000 hogs kept in such buildings in every town in the country. How is it that such a bonanza has been overlooked?

Then the men who are advising the farmers what to do could exhibit their patriotism and at the same time add to their bank account. Yes, we are unbusinesslike but how about the Government who advertises a system of bookkeeping for a private concern, which, so far as I can learn, has never been shown to be practical on a farm where a man has to make his living. We are unbusinesslike but in my time I have visited probably a thousand farms managed by business men, on business principles, and at present I cannot call to mind one that broke even, and I could name a large number that quietly gave up the ghost. Yes, the farmer wants to be shown and in reply gets reports of demonstrations that have not been proven on a successful farm as a unit.

I have a standing offer with the Ontario Minister of Agriculture to pay railway fare and any reasonable allowance, but not less than \$5 per day, for a man to show me how to make the profits that they are advertising every week in the agricultural papers, but up to the present they only want men who can talk about profits rather than show how these profits can be made.

The farmer is supposed to attend to his work and not ask inquisitive questions. Even our own Experimental Union is showing the same tendency, where the College boys who are farming are conspicuous by their absence, and is it any wonder?

Last year when one of the former students brought down a resolution from a farmers' club, duly signed by the president and secretary, for the consideration of the meeting, it was shelved so that the paid representative of the American Fertilizer Company could have the floor, and what was more they gave him fourteen pages in the Government report of the Experimental Union. Surely the American Fertilizer Companies could well afford to double their representative's salary after such a successful trip. At the annual supper, out of those who were asked to speak there was only one real farmer and he was more politician than farmer.

This organization which should bring the College and farmer closer together and act as a clearing house and pass on all proposed agricultural legislation, is apparently not interested in their real bread and butter problems, but only in some successful demonstrations on small plots that someone is personally interested in.

Your correspondent states that "some look on the



Short Course in Agronomy and Animal Husbandry at British Columbia University, Vancouver, B. C.

District Representatives and the Department of Agriculture as worse than useless." Also, "that the younger men know the value of these Representatives and of the need for research work." Very true, but if the research work stops short, as it has done, of being made practical in managing a farm so as to get a living from it, does it not stand condemned? Again I say give us facts and figures and if the Representatives and Department of Agriculture can manage farms with a reasonable profit, we will all go to be instructed. If they cannot, then let the Department of Agriculture put all its resources to work to find out the reason that agriculture is not a business that gives reasonable returns for investment of capital and labor.

If your correspondent is correct when he states that the last Convention of the United Farmers of Ontario was a terrible exhibition of prejudice and spleen among the farmers, then by all means let us have more prejudice and spleen among the farmers. It was a sign that farmers are waking up and intend to get a fair share of the returns of their labors. I have no doubt that the pork packers, the millers, commission men, and all the horde of unnecessary handlers between the producer and consumer, and who fatten on both, are agreed that the Convention was a terrible exhibition of prejudice and spleen. A convention, as well as a man, is known by the enemies it makes.

Grey Co., Ont.

G. F. MARSH.

No Government Ownership of Farms for Him.

EDITOR "THE FARMER'S ADVOCATE":

In a recent issue of your most valuable paper there appeared an article from the pen of Allan McDiarmid, advocating a return to primitive conditions, namely: government ownership of farms, or all farms coming under government control. Surely Canada is not content to take this retrograde step.—In England we have an example of how this works out, great landlords, renting their farms to tenants at prohibitive rentals. (I use the word "prohibitive" advisedly for they surely prohibit the rise of the tenant) thus producing a land of rich gentry and squires, but also alas! a land of drudgery and poverty and practical captivity.

This condition also existed in Ireland. I quote from "The British Nation" by Wrong. "The Aim of the Land Bill of 1903 is to transfer the land from the landlords to the actual occupiers of the soil. . . . The plan won the approval of all classes, and by this measure the Irish patriot at last saw within his grasp, his dream, that the land of Ireland should belong to the people of Ireland."

Canadians will take no chances on any one but private owners having possession of the land. For the government to own or control a large tract of land, there would need to be a great system. There would need to be a manager, and if a manager, hired men; and if hired men, fixed hours of labor, and if fixed hours of labor, you do not take into consideration the numerous emergencies that occur on every farm.

Who will be the manager? Most likely if the concern is made to pay, a great worker, a hard-driving, go-ahead fellow, a good-for-himself man, but one whom one would not care to work for, and, by the way, there are plenty of this species within telephone call of most of our homes.

You can fancy our independent farmers getting up when called, and not quitting until told to. No! anyone who has worked for himself does not feel like yielding his will to any other man. For example, at noon, if the farmer sees an extraordinary article in the daily paper, or "The Farmer's Advocate", he takes time to read it, or if he takes a notion to go to town, he simply consults No. 1 or possibly, as Sandy Fraser says, "The Auld Wumman". Under the best boss in Canada those conditions couldn't exist or the business would go to smash, so government ownership could not be practical with old farmers as help.

As for increased production under government ownership, the idea is preposterous. In this district all is being produced that can be produced. Men, boys, women and girls all help. Would this land get as much help as it does now? No! if "Dad" worked on a government farm "Ma" and the "Kids" would not help work that farm, and we don't blame them.

Now many farmers, the writer included, have held down good jobs in town. In the factory in Toronto where I worked, five or more good mechanics quit the business and went farming, and all are making good. Would Mr. McDiarmid take those of us who have left all (home and friends, and all the attractions and benefits of city life,) for simple liberty from routine and slavery of the starting and quitting whistle, and the whims of a "Boss", and put us under a farmer "Boss". No! he never will, for many of us would prefer the city boss who knows what a day's work is, to may farmers who are slaves themselves, and slave drivers to their men.

We will all produce to the limit of our powers, and yet be free men in a free country. Free to think, speak and act as the dictates of conscience, reason and business instinct shall direct.

Peth Co., Ont.

"SUBURBANITE".

"I have taken 'The Farmer's Advocate' since the year 1872, and have received a lot of profitable advice, to say nothing about the handsome Christmas Number we get each season, I might say gratis, for I consider the other weekly numbers amply repay us at the present subscription price. I see, occasionally, other farm journals, I have never seen one to compare with 'The Farmer's Advocate'."

Grey Co., Ont.

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S. W. SQUIRE.

The Small Electric Light Plant on the Farm.

EDITOR "THE FARMER'S ADVOCATE":

Last summer I paid a visit to an acquaintance of mine who lives about ten miles from my home. I arrived at his place shortly after dinner and after putting my car in a shady place, I went for a walk around the premises with my friend. I was somewhat surprised to find his house all supplied with electric lights. On enquiring about it, he told me that he had a private generator installed in the cellar. He asked me to come down cellar and have a look at it, and I accepted the invitation, for not having seen one of the many systems now on the market, I was curious. Descending the stairs we entered a small room that had been partitioned off with matched lumber. Along one side there were two rows of shelves. On these shelves were sixteen glass enclosed storage batteries, eight batteries on each shelf. On the other side of the room was the generator. It was the most compact outfit imaginable. It consisted of a small gas engine with the electric generator mounted at the end of the crankshaft, the whole outfit being enclosed and air-cooled by a suction fan that draws the air down around the cylinder of the engine and in this way keeps it cool. The generator does not take up much more room than a cream separator. I was next shown through the fine home. It was equipped with electric fixtures equal to most of the middle-class city homes. In our "tour" of the premises he showed me how he had the stables and other outbuildings lighted with electric lights. He, of course, has a car and has his garage well supplied with electric lights. He has a bulb on an extension cord to give light for repairing parts that the daylight does not adequately reach. He also has a charging "board", as it is called, for recharging the storage battery in his car. He also told me that he intends to purchase a small electric motor to operate the washing machine, churn, etc. After having the system completely explained it appears to me that for the individual farm home that is not supplied by Hydro, the small electric light plant offers the solution to the problem of lighting up the farm home equal to the average city or town home.

Halton Co., Ont.

FARMER.

Facilities and Funds.

EDITOR "THE FARMER'S ADVOCATE":

"The Farmer; the Corner Stone of Civilization", is the terse definition of the man on the land by Theodore Roosevelt. This is the refrain of a song people have been hearing for half a century at least. A fine mouthful of words, but I notice that most of those who sing it and many of those who hear, had rather be a lean-to in the town than a pillar of society in the country. Col. Roosevelt himself, with about as keen an eye to the main chance as anybody, observed, when executive head of the American commonwealth, that things were not going right and that the concern was a "commonwealth" more in theory than in practice as far as the farmer was concerned. So, resorting to a plan some 3,400 years old, he sent out the Country Life Commission which in due course reported. The world at war, has once more focussed attention on its chief food-producing end, the farm, and Col. Roosevelt returns to the subject in a recent volume in which he tells of some of the "foes of our own household", one of whom got between a Southern farmer who received 69 cents per bushel for his potatoes and the Indiana woman who paid \$1 per bushel for them. Who gobbled up that \$3.31 he wants to know, and why? Among other conclusions which he reaches is one that has been realized in Canada, viz., that a single farmer to-day is no match for the corporations, railroads and business enterprises with which he must deal, but, organized into co-operative associations, his power is enormously increased. While he prefers reforms being primarily brought about through the farmer himself, he strongly endorses government supervision of corporations but is evidently compelled to the conclusions that there are some things so important to the welfare of all that the collective power of the whole people, which is the government, must be exercised. This has a very particular application to the transportation of products for the farm—a pressing issue in Canada at the present time. Among seven Roosevelt objects specified as desired, is one, No. 5: To make capital available for farmers and thereby put them more on an equality with other men engaged in business. To the established, well-to-do Canadian farmer this may not appeal with the force that it does to a beginner who wishes to buy a piece of land or to make some now costly building improvement, or to purchase live stock to be turned over to good account later on. A great many farmers give their notes for dairy cattle at auction sales which is one way of securing capital. Extensive purchases of supplies by Farmers' Clubs are financed by funds from the local bank on the security of notes given by the officers or members. Some of us would appreciate through "The Farmer's Advocate", without necessarily specifying names of places, just what has been the experience of individuals and organizations in obtaining funds for farming enterprises. Rates of interest have been mounting because of war conditions and may continue, so that the subject is a live one, considering the increasing cost of operating a farm—and especially if production is to be increased.

The question of capital to promote greater farm production naturally came to the front in the United States last year, and in New York State what was known as the Patriotic Farmer's Fund, was organized in April. In a recent statement published of the results, the area cultivated that would otherwise have lain idle, is put at

34,367 acres, and the value of the increase in food production throughout the state at \$3,500,000. It was a voluntary effort on the part of the promoters, the rate being fixed at 4½ per cent. per annum, the one half of one per cent. going to the bank handling the loan and the rest of the interest to cover other expenses and to the lender. The money was needed for seed, implements, fertilizers and labor by small farmers. A committee of seven trustees, a committee of the New York State Grange, the banks and 554 local loan committees of three co-operated in carrying out the venture. The latter passed upon the applications for loans, the object of which was specified in the application, the crop to be grown being offered as security. The notes were to mature on or before December 1st. Field crops and important vegetables were chiefly grown. The amount loaned totalled \$284,842.68, the maximum individual loan being \$150. Loans as small as \$6.10 were taken. Before the summer closed 2,854 loans were made and the bulk of them were repaid before the end of September. The banks were said to be skeptical of the idea at the outset but changed their views upon seeing the outcome of the venture which resulted in many new accounts being opened and more prosperous farmers. Before the end of September loans had been handled by over 200 banks.

ON THE WING.

A Winter Sketch.

EDITOR "THE FARMER'S ADVOCATE":

Some say they "Just hate the winter," others that they "Just glory in a snappy winter day". You may depend on it, though, that the glorying or hating is pretty much in accordance with the particular job these Haters and Gloriers have to do, or are doing.

Now, as regards myself, I'll confess at the outset that I bear no great affection for winter at any time, except, perhaps, in July when I sometimes try to get cool by thinking blissfully of some Arctic day. In January, however, it's almost impossible to think blissfully of anything except a roaring fire, and these days, to keep a fire roaring I have to chop wood, saw wood, split wood, carry wood, think wood until I feel that if it wasn't so blessed cold I'd like to err and stray like a lost sheep, and wander around till I found a spot where axes, and saws, and wedges are not, and coal is. As things are, however, I usually end up by considering that, of the two evils the wood business is the lesser, and so like other people I make the best of things and—yes, saw wood!

Taking most things into consideration I fear if I were to count the blessings that fall one by one to my lot in cold, cold Januarys and Februarys, I should never arrive at two. But, even so, I will not go so far as to say that I hate winter, nor will I perjure myself by saying I glory in it. I will say though that I am fortunate in that I am able to control my feelings, especially the hate ones, for I have long recognized the foolishness of going to extremes when the English language is so singularly deficient in words sufficiently expressive for such occasions. In case anyone should gather the impression that I am a sort of super man, I'll whisper that there is a time when it's safer for me to uncork my hate bottle, and let nature take its course.

About six in the morning is the testing time, when I descend from a seventh heaven of dreams to awake in a slough of despond with a ready-made, intense detestation of anything outside of a pair of blankets, detestation that reaches the zenith of rampagiousness just as I fling back the bedclothes and stick my feet over the edge of the bed into that snappy stuff that some people glory in when they have all their clothes on, and a few furs to boot. For a few brief moments after I get fairly landed four square on the floor my hate declines somewhat owing to my chattering teeth, and the nice, healthy shivers that chase one another up and down my person. Downstairs, however, as I yank, and stamp, and gunt at my boots to get them on it begins to climb again, and it becomes rampant once more as I open the door and stick my nose outdoors, and my feet into a foot of newly-fallen snow.

Many and various are the unkind thoughts that pass through my mind as I flounder to the barn where presently I stir up bitter feelings in Romeo, the milk horse, who, because I'm in a hurry, acts so contrarily that it takes me a week or so to hitch him to the sleigh. Being young he doesn't seem to know how foolish it is to provoke a man so early in the morning until I tickle him somewhere near his ribs with a bludgeon which causes him to plunge out into the white world, and away we sail. Away and away towards the eye of the dawn with the snow flying in little clouds from his spurning feet, his breath spouting out like twin jets of smoke until we reach the milkstand where I deposit my full cans of milk with a thud, load up with clanking empties, and turn for home. Romeo, knowing the necessity for hurry is over, adopts a pace more in accordance with his inclination. I do not urge him because of suddenly acquired humane reasons; and so we glide sedately along, each of us thinking that, after all, there might be worse jobs than hauling out the milk, but which we hadn't come across yet.

Suddenly, from out the railroad cut nearby, a passenger train rushes with a roar. It passes by with belching smoke and glittering lights and dies away in the distance, leaving behind in me a new-born wish that I was a passenger on it, for I know its destination. I picture it slowly drawing into an echoing depot where will be many hurrying people, much confusion, excited voices, laughter and maybe tears.

"Hang such a life as this", I mutter sourly as I glance around and become conscious of the utter silence

and lone hermit!

The snow away before the light of a sun in beast or lost all poverty houses and smoke curling stirring.

I hate gloomy!—no doubt,

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The del Ontario me of last week means of n 1918 better Fairs and I was their are affiliated in the provi affiliate since fairs and so present to local organi tion Conven and this ye S. Scarf, D had acquie strumentaliti these he me has been the losses that referred to grown to en of the Assoc of the wor Scarf lament held in con cultural soci insure the suggestion yo held the first judges, for t Fair and at

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The Secret

and loneliness surrounding me, "Might as well be a hermit!

The snow drifted road, devoid of all life, stretches away before me in monotonous straightness. The dreary light of a sun hidden by storm clouds awakens no joy in beast or bird. The naked woods, the bare fields have lost all power to charm and seduce. The snow-roofed houses and barns look bitterly forlorn; except for a little smoke curling from the house chimneys, there is nothing stirring.

I hate it; hate it all, I cry, everything so blessed gloomy!—Get out o' this, Romeo, I bellow, and Romeo, no doubt, remembering the wallop he received at the

beginning of our journey, gives a little squeal, a shake of his head and speeds up so suddenly that I lose my seat on the top of a milk can and go sprawling backwards.

By the time I get straightened out, Romeo has wheeled in at the gate and landed me at the barn where, as he comes to a standstill, he twists his head round inquiringly to see if I'm still there.

As I jump out of the milk chariot to unhitch I find that Romeo's little trick has rid me of the feeling of "blueness" and that my spirits have risen to summer heat. The last vestige of hate disappears as it comes in contact with the warm, pungent air of the stables. The contented munching of the horses is music that soothes,

and the sight of a couple of kittens indulging in a fierce but mimic battle makes me see very clearly how foolish it is to hate anything, even a cold, raw winter morning. With this last thought in mind I hasten to breakfast.

When I come out again I am in an excellent humor; I am even able to hum a lively refrain. I find that the sun has struggled out, and lit the world with sparkling splendor and I haven't the capacity to absorb the beauty of it all. It's a beautiful day, a glorious day, and I revel in it, and glory in it—Who said I hated anything?

York Co., Ont.

R. WATERMAN.

Agricultural Society Delegates Assembled Discuss Fall Fairs.

The delegates of agricultural societies throughout Ontario met in convention on Tuesday and Wednesday of last week in the city of Toronto to discuss ways and means of making the Fairs and Exhibitions staged in 1918 better than usual. The Ontario Association of Fairs and Exhibitions is no new organization for this was their eighteenth annual convention. With it are affiliated a large number of the agricultural societies in the province and regret was expressed that all do not affiliate since its object is to look after the interests of all fairs and societies. A large number of delegates were present to bring ideas and take others back to their local organizations. The Fairs and Exhibitions Association Convention is always a lively and spirited event, and this year was no exception. The President, Wm. S. Scarf, Durham, enumerated several advantages that had accrued to agricultural societies through the instrumentality of the Central Association and amongst these he mentioned the Wet Weather Insurance which has been the means of guarding the Fall Fairs against losses that might cripple them for years. He also referred to the Field Crop Competitions which had grown to enormous proportions and the constant efforts of the Association to get increased grants for the benefit of the work conducted by the local societies. Mr. Scarf lamented the fact that School Fall Fairs are not held in conjunction with the fairs staged by the agricultural societies for they need the younger element to insure the future success of such institutions. The suggestion was made that the School Fair might be held the first day thus saving expense and the time of judges, for the same judges could officiate at the School Fair and at that held the second day by the Society.

The Vice-President, L. J. C. Bull of Brampton, corroborated the statements of the President in regard to the usefulness of the Fairs and Exhibitions Association and paid a tribute to the good work of the Standing Field Crop Competition which he considered one of the most effective lines of work, now extant, to increase production.

The report of the Secretary and Superintendent, J. Lockie Wilson, contained still further evidence of the service rendered by the Association; in this regard he said:

"The grants to spring fairs, stallion and fall shows and seed fairs have been the direct results of your efforts. The grants to the societies have been largely increased. The first grant you received from the Government for Standing Field Crop Competitions was \$1,000. In ten years this has been increased to \$25,000 and the Government provides judges free of charge. The larger exhibitions and winter fairs have recognized the fine educational work you are doing and have offered large prizes for grain and sheaves. The sum of \$29,750 has been in this way paid to your members, who were prize-winners in the grain, sheaves and roots in the Standing Field Crop Competitions, and the agricultural societies have themselves paid in prizes to their members for this work during the last decade no less a sum than \$65,000. The Federal and Provincial Governments during the same period have contributed towards the prize money for Standing Field Crops alone \$150,000. Only 185 societies of the 350 in the Province have yet entered this Field Crop work. Much has been accomplished; much remains to be done. We have an army of 7,000 stalwart yeomen already engaged in this battle. I am looking forward to the time when no less than 25,000 farmers will be recruited and carry on this valuable work for Canada and the Empire."

The Secretary drew attention to the fact that short courses are maintained each year for the express purpose of training judges in order to obtain uniform work, and the cost of this is met by the Government. Another progressive movement has been the Wet Weather Insurance Grant which the Government also heartily supports and for which they have set aside \$10,000 each year to meet the loss in gate receipts.

The Act has been recently amended to provide partial compensation for the destruction of exhibition buildings by fire within a month previous to holding an exhibition. On request the Act was also amended allowing 75 per cent. instead of 60 per cent. of loss in gate receipts as formerly, and in computing loss the average of 3 previous normal years is taken into consideration, instead of the 3 previous ones, which had proved a hardship to societies which had suffered loss in gate receipts for successive years.

Directors were encouraged to give special consideration to the fine arts, dairy products and floriculture in any revision of their prize lists, and to conduct this work more efficiently it was suggested that a lady official be added to the Secretary's staff. This met with the approval of the convention. Mr. Wilson impressed upon the delegates the necessity of naming all varieties exhibited in order to increase the educational value on of the fair.

The Secretary also made it plain that it was contrary

to the spirit of the Act to appoint as auditor a member of the Board. Officers and directors must pay their membership fees within 14 days of their election; otherwise they become disqualified and others must replace them. The Secretary and Treasurer or Secretary-Treasurer must be elected at the annual meeting. The Board must do that at their first meeting. Under the Act, agricultural societies' buildings and grounds are exempt from taxation, except local improvements, and the local secretaries should bear this in mind. A request was also made that statements be carefully prepared and forwarded promptly.

A special appeal was made by Mr. Wilson for delegates to enlist all the local societies possible in the Standing Field Crop Competition work. Especially was it desirable that they increase the acreage of spring wheat in this way. As a stimulus the Government has increased the grant so the prizes of the local society for spring wheat will total \$100 instead of \$75, as formerly. Prizes for all other crops will remain the same.

A tribute was paid by the Secretary to the good services of the late Treasurer, Alexander McFarlane, who had been an efficient officer since the inception of the Association.

The financial statement of the association showed a balance on hand amounting to only \$52.56. The directors regretted the small revenue which they derived and hoped that more societies would affiliate in order that they might extend the usefulness of the Fairs and Exhibitions Association.

Management of Fall Fairs.

In plain language and explicit terms, W. J. Bell, Principal of the Kemptville Agricultural School made several good suggestions regarding the management of Fall Fairs. This subject was treated from two angles; first as to the preparation necessary for a successful fair, and second, management on the day of the fair.

Under the preparation for a successful fair Mr. Bell mentioned judicious advertising. It was necessary he said, to give the fair greater publicity than it obtained through the publication of the dates. The advertising should present the prize list in an attractive way. "Interest in fall fairs", said the speaker, "is waning in certain localities and I believe might be revived if a sincere effort were put forth to secure and advertise specially attractive and educative exhibits". In this regard Mr. Bell suggested exhibits for the Provincial and Dominion Governments of Agriculture; possibly a tractor demonstration could be staged and judging competitions could be conducted. Junior Farmers' Improvement Associations often erect very nice displays. "Try something new; start something and advertise it thoroughly". Another recommendation was that both young and old men be included in the committees. "The older men have the necessary experience but the younger men have the 'punch' required to make things 'go'. It is generally advisable to include some of the business men of the town among your officers." The necessity of revising the prize lists was also emphasized as many of them were out of date in respect to classifications and demands. A strong objection was taken by the speaker to the custom of using special judges for special classes. The one judge should complete the work. Reference was made to several instances where contradictory decisions had been rendered. In one case a horse had received a ribbon for being the best Roadster on the grounds and before the judging was completed the same horse was adjudged the best carriage horse as well. Both decisions were made by the same judge in this case. Mr. Bell made a special plea for more suitable judging rings. It was declared impossible to show a horse to advantage when the footing is not good and furthermore the judge is hampered in his work. A convenient section of the grounds should be leveled and live stock should not be allowed on it when it is wet. A live-stock parade might be arranged for and suitable stabling should be provided and painted so as to present an attractive appearance.

As to the management on Fair day it was recommended that a committee meet the judges and have accommodation arranged for them. In order to conduct the judging according to schedule a good live-stock marshal equipped with a saddle horse was suggested. Set a time for each class to be judged and judge each class at the appointed time. Concerning the duties of committees Mr. Bell advised that they acquaint themselves with the classification of the prize list, and familiarize themselves with the by-laws governing the department in their charge. They could then make rulings without hesitation or delay. It was not the duty of any member of the committee, he said, to assist or attempt to assist the judge in making awards. Neither should an official exhibit an entry when he is wearing an official badge, nor take advantage of his position to endeavor to influence the judge.

After War Conditions.

Agricultural Societies and After-War Conditions was the theme discussed by A. R. G. Smith, New Hamburg. The speaker pointed out the necessity of enlisting the younger element and getting them interested in agriculture generally, and the fair in particular. The Wilmot Agricultural Society last year paid their respects to 700 boys between 11 and 19 years of age who had worked on farms in the township. They were guests of the Society the first night of the fair and were presented with Farm Service Badges. About 300 in all responded and took advantage of the honor paid them. The Wilmot Society thought they should take recognition of their work on the land in this way and a special program was prepared for their benefit. In addition to this all the school children of the town of Hamburg and the township of Wilmot were the guests of the society throughout the fair. They were presented with complimentary tickets, through their teachers, and all were interested visitors. In this way the society endeavored to get the young people sympathetic so a goodly percentage of them would develop into strong supporters of agriculture and the local agricultural institutions. Mr. Smith said they were not in favor of the professional exhibitor who came with a trunk full of stuff and carried off a good deal of the money. To offset this they are paying special attention to the schools and intend to revise their prize lists accordingly. The intention is to call the teachers together and find out what the children of different localities are interested in and what they can produce. A sum will then be set aside for prizes to be won by each school whose pupils will compete against each other. Sweepstake prizes may be provided in order that the schools may compete. The idea is to develop community spirit in certain lines of production and stimulate any efforts that are being made. At the same time the local fair will benefit by their patronage.

In view of the fact that live stock is sure to meet with exceptional demand after the war the Society in question is considering an increase in prizes for sires of predominating breeds in the district. The aim is to back up all appeals for the improvement of live stock and greater production by recognizing any special effort made with liberal money prizes.

School Fairs vs. Fall Fairs.

The opinion seemed to prevail among the delegates that the school fall fair was encroaching on the ground of the established fall fair and detracting from the latter. L. G. Jarvis, of Grimsby, sent a communication to the Convention recommending that steps be taken to have them amalgamated. The suggestion was made that the school fair be held on the first day of the society fair. The same judges would officiate, and that labor and expense would be conserved. A committee was appointed to wait on the Minister of Agriculture and ask that, where possible, the two fairs be held together.

Advertising Fall Fairs.

In discussing the advertising of fall fairs, J. B. Hay, Advertising Manager for the Canadian National Exhibition, said that the posters used by a certain fair in Ontario had come to his attention, and in one particular stirred him to indignation. Commenting on it he said: "Every year, as you know, the fairs of Canada are bombarded with masses of publicity from printing houses in the United States that make a specialty of exhibition advertising. Some of their samples have been doing duty for twenty years and will likely be serving another generation unless our fair managers shriek out a protest. It was one of these moss-grown abominations of a forgotten age. It just groaned with age, and had surely earned superannuation instead of having its antiquity shown up in bold black and white. Surely it is time our fairs stopped advertising the types of cattle pictured there as samples of the best in Canadian animal husbandry. The only place such cattle should be shown is among the freaks on the Midway. Hot houses should be provided for some of the samples of fruits and vegetables depicted, for they could grow in no other place north of the Mason and Dixon line." Mr. Hay conceded that the small fairs could not employ the best commercial artists in the production of posters, etc. "Individually," he said, "perhaps none of the smaller fairs are able to do this, but collectively, gentlemen, you should be able to command the very best service, pictorial and otherwise, possible to obtain. Co-operation is the answer, I believe, to many of your advertising problems. Co-operation would easily make available what is now unattainable because of prohibitive cost." The speaker regretted that so much money was sent out of Canada for what could be produced at home in this line, and referred to a large Canadian fair that distributed large quantities of publicity matter in the United States, and it was all prepared in Canada.

The suggestion was also made that fair managers develop the community spirit and get the local advertisers to mention the fair in their space. Firms should be glad to have the dates printed on their letter heads, and delivery wagons could carry banners announcing the event. Local people could write their friends and invite them to visit the town or village on fair day. The community spirit, he said, should be developed to the fullest extent.

The Potato Section at the Fair.

The delegates to the convention were informed regarding the multiplicity of varieties in the potato crop, and the desirability of eliminating many of them by Justus Miller, Assistant Commissioner of Agriculture. An investigation in New Ontario had revealed the fact that 87 different growers visited were producing 38 varieties. In Old Ontario 18 growers visited were found to be producing 20 different varieties. In other words a total of 105 growers were producing 52 varieties of potatoes in Ontario. Wholesalers in the trade had expressed themselves against the use of so many varieties as it was difficult in the Province to obtain a carload of the one variety or type in a district. It was furthermore found that dealers were importing from New Brunswick for the simple reason that only two varieties are generally grown there and potatoes in car lots can easily be obtained which are uniform in color and type. Mr. Miller, in the course of his remarks, proposed that the fall fair boards take this matter into consideration and endeavor to assist in the standardization of production. It was suggested that they offer larger prizes for potatoes of the Green Mountain and Irish Cobbler type. An "any-other-variety" class might, for the present, be retained with the ultimate elimination of undesirable varieties in view. This suggestion was also extended to include the Standing Field Crop Competition where an effort might be put forth to induce competitors in the same society to grow one variety only. This initial effort could later be developed to make the Green Mountain and Irish Cobbler types the varieties for which prizes would be awarded.

The convention approved of these recommendations and a motion embodying the suggestions was carried by the delegates assembled.

The Poultry Exhibit.

The preparation of poultry exhibits was discussed by F. C. Elford, C.E.F., Ottawa, who explained the importance of that section of the fair in general, and of the hen in particular. The bird herself, he thought, second to no class of live stock, "for you can eat her before she is born and she makes good food a long time after she is dead." Prof. Elford described the utility bird which should be exhibited, and said that they should be examined and prepared. Too many are simply gathered up and put into coups regardless of their condition, and frequently the coups are no better than those used to send fowl to market. He advised that more emphasis be laid on the utility bird and that pens of this kind be shown. In regard to dressed fowl several suggestions were made. The exhibitor should start to feed at least four or five weeks previous to the fair, and the birds should be starved 24 hours or more. During this time they might be allowed a little water. They should be packed tightly in the crate and be even in size as well as uniform in fleshing. These recommendations were directed to the exhibitor, but the management were not neglected in Prof. Elford's remarks. He expressed the opinion that directors, who were no good anywhere else, were too frequently given charge of the poultry. Young men, interested in poultry, were recommended for this office. A suitable building and the proper kind of coups were mentioned as requisites to a successful poultry exhibit. Respecting prize-lists, the speaker advised cutting down and the distribution of more money over the utility classes. The amateur exhibitor should also be encouraged, for generally he represents the class who are feeding the nation. A sales class, and an egg-laying competition were two other recommendations, and Prof. Elford thought it a good idea to have the same judge come back year after year and "take his medicine."

R. H. Essex, of Hamilton, gave expression to several good ideas as to poultry exhibits and coupling arrangements. He submitted that the poultry exhibit was the most attractive one at the fair and drew the most people. It was advised in this connection that a premium be put on good coups in order to improve the appearance of the display.

Exhibiting Dairy Cattle.

W. F. Stephen, Secretary of the Canadian Ayrshire Breeders' Association, imparted to the convention considerable information as to exhibiting dairy cattle, and managing a dairy exhibit at a fall fair. The directors were advised to feature dairy cattle in dairy cattle districts but to keep the breeds separate and, where possible, have different judges for the various breeds. Breed displays were considered a good feature, and a milking competition would excite interest. A suitable building was mentioned as a necessity, while fence-corner stabling was condemned. A capable superintendent for the department would add materially to the success of the event, and simple but explicit rules were quite in keeping with good management. Fair managers were advised not to cater to any one in the district, and they should not pay too much attention to the "grouch."

To the exhibitor, Mr. Stephen said that exhibiting dairy cattle was one of the greatest games on earth, and the showman should be a sport. The exhibitor must make considerable sacrifice in order to promote breed interest and demonstrate the possibilities of the community. In spite of the sacrifice every one should put an exhibit in the local fairs and begin to fit the entries in good time. Exhibitors were admonished to play the game fair, and "If you win don't brag; if you lose don't boast."

Suggestions re Standing Crop Competition.

The work of the Standing Field Crop Competition in Ontario and elsewhere was reviewed by T. G. Raynor of the Seed Branch, Ottawa, and suggestions were offered with certain improvements in view. The multiplicity of varieties has been a deterrent in Ontario to the greatest success in agricultural efforts. As a remedy, Mr. Raynor prescribed the following:

"I would suggest that a committee be appointed consisting of say Dr. Zavitz, Dr. Chas. Saunders, L. H. Newman and the president and secretary of your organization who would decide on which were the best varieties of cereals for the various districts and then secure the co-operation of the various societies in using such varieties. In some special districts it might be desirable to ask the advice of a District Representative in agriculture, more especially those in the Northern Ontario Districts. Such action would soon bring about large quantities of desirable seed which would meet the demands for carload lots. Experimental stations, for instance, discover a new variety of some crop which is promising. How easily such a crop could be multiplied first through branch experimental stations and by members of the Canadian Seed Growers' Association. In this way quantities would be obtainable for the various societies who would take up the growing of one variety to furnish the carload lots for shipment to other provinces for seed purposes. Ontario has a great opportunity for catering to the seed trade of the Dominion in a number of cereals and to the United States as well. There is another change which I believe would be beneficial. At present fixed sums of money are offered as prizes and these prizes are the same in each competition. It often occurs in scoring fields that two of them tie and very frequently there is only half a point between the first and second prizes. A judge often has difficulty in adjusting the scores so that there will be a gradation in the scores. Then the same number of prizes are given in each competition no matter how many competitors there are. I would suggest that we could take a leaf out of the book of Nova Scotia's methods and say, as they do, that there will be no competition unless five or more compete when four prizes will be given: from 6 to 10 entries, 5 prizes; from 10 to 15 entries, 7 prizes; from 15 to 20 entries, 9 prizes; from 20 to 25 entries, 12 prizes; from 25 to 30 entries, 15 prizes, and for 30 or more entries, 20 prizes. Instead of paying a fixed amount of prize money they pay for competitions in wheat, oats and potatoes, 40 cents for each point over 75 in the score, and 75 cents for each point in turnips over 75. I think you will see that this method is a very equitable one and that far more encouragement would be given the competitors to do their best."

Ladies Department at the Fair.

The report of a committee re ladies department at exhibitions was presented by Miss M. V. Powell, Whitby, who outlined certain work in the interest of the ladies' section, included in which was a short course for the female judging staff of the Department. Mrs. M. L. Woelard, Toronto, followed this with other useful recommendations. Her suggestion was that there be some life in the ladies' building to attract visitors

rather than having it a place to go into when it rains. Women, specialists in their respective lines, could go about in the district and train the girls and then these young ladies so equipped should entertain, and demonstrate different lines of work at their local fairs. It was also recommended that dairy products be scored so exhibitors could learn where they failed. The judge might remain until the second day and explain.

In addition to the regular addresses and business of the convention, the delegates had the opportunity of listening to an able discourse delivered by Sir John Willison of Toronto on "Politics and Parties". Motion pictures, showing agricultural life, particularly in war time, were cast on the screen.

Officers.

The election of officers for the ensuing year resulted in the following choice: President, W. S. Scarf, Durham; Vice-President, L. J. C. Bull, Brampton; Second Vice-President, W. J. Connelly, Cobden; Secretary and Editor, J. Lockie Wilson, Toronto; Treasurer, J. E. Peart, Hamilton; Auditor, R. Agnew, Toronto.

The directors according to districts are:

- District 1.—J. E. Montgomery, South Mountain.
 " 2.—J. L. Sproule, Westbrook.
 " 3.—W. J. Barber, Rossmore.
 " 4.—Wm. Hickson, Bobcaygeon.
 " 5.—R. B. Henry, Orangeville.
 " 6.—F. W. Ramsay, Dunnville.
 " 7.—Adam A. Armstrong, Fergus.
 " 8.—Amos Doupe, Kirkton.
 " 9.—Jno. Farrell, Forest.
 " 10.—R. H. Richardson, Hanover.
 " 11.—Roland Hill, Huntsville.
 " 12.—Wm. Marshall, Sault Ste. Marie, E. F. Stephenson, New Liskeard, Jas. Tonkin, Fort William.

Arguments for Wide Sleighs.

EDITOR "THE FARMER'S ADVOCATE":

In a recent issue of The Farmer's Advocate a correspondent asks for the opinions of readers re an Act to make the sleighs the same width as the wagons.

I would strongly favor such an Act but would not favor having it brought into effect just at the present, as owing to war conditions the expense of widening the sleighs now in use would be much greater than it will, in all probability, be in a year or so after the war is over, and also because any legislation brought in suddenly without being preceded by a campaign of education along the lines of the proposed change does not generally meet with the greatest measure of approval.

I would, however, strongly urge our Farmers' Clubs to take the matter up and have it thoroughly discussed and brought to the attention of our township and county councils so that the way may be paved for legislation on the matter after the war.

Sleighs of the width now in use served their purpose fairly well years ago when lighter horses were used on our farms, but the introduction of wider machinery, coupled with the better market demand for this class, has made the heavy horse the popular farm horse of to-day, and when the roads become high, as they inevitably will through the track filling in with every fresh fall of snow there is not room on the width of road made by our narrow sleighs for a team of heavy horses, and "crowding" is the result and anyone who has ever followed a "crowding" team knows that they leave the road almost impassable until it is plowed out. With wide sleighs there would be no tendency to "crowd" and in many cases where roads now have to be plowed, this expense could be saved.

Wide sleighs do not "slew" or "cut off" as easily as narrow sleighs because there is a wider and more solid "comb" or ridge in the centre to hold them and more of the load is over the runners instead of hanging outside them, and in the case of wide loads they are, of course, not so easily upset.

Horses walk along with a freer gait on a wide sleigh, having more room, and therefore beat out a wider track and handle their load with greater ease.

Owing to the fact of each runner track being beaten out wider, cutters of the width at present in use follow the road of the wide sleighs as well as the narrow ones. I had occasion to drive over a road on which gravel was being hauled on wide sleighs and I never drove on a better cutter-road in my life.

I would like to see the opinions of more readers expressed through "The Advocate", also your Editorial comment.

Carleton Co., Ont.

HEBER SHAW.

Canada's Young Farmers and Future Leaders.

The Young Farmer's Duties at the Present Time.

EDITOR "THE FARMER'S ADVOCATE":

Let us take a bird's eye view of the situation and the present needs, in order to find out where we can be of most value as farmers at the present time. We must realize that this world war is causing conditions which were never so serious as they are at the present time. We find great demand for things hitherto practically uncalled for. Alarms of shortages of various items are constantly hurled at us.

Perhaps three of the most loudly noised calls of the present day could be termed as the three "M's"—Men, Money and Meals. These three considered we will try to find out what is left for the young farmer to do.

Let us deal with the first mentioned, Men. You will agree with me that farmers do not have a surplus of

men and thus by giving of our men would actually rob the country of its greatest source of power at the present time, for production would be greatly lessened due to non-cultivated lands or at best improperly handled farms. Many lone farmers, disgusted and discouraged for want of efficient hired help, would simply quit the farm. This condition prevalent usually causes another. High prices of farm produce have caused the town dweller to envy the farmer and some will venture to invest hard cash in farms although inexperienced in the art of agriculture and with few exceptions soon give it up again only to find that they have paid very dearly for the experiment, both farm and the "would-be-farmer" having become poorer. Thus the country is weakened in a two-fold manner.

Let the next call be for Money. Yes, it is our duty to give where and when we can do the greatest good, but we must get it or make it first, and since the young

farmer's investment is usually a heavy one, he is not immediately bothered with a surplus of loose cash and it would be very unwise to give to the country to the extent that would cripple his powers of producing. His money invested in better machinery and a better system of farming would not only increase production but he could prove himself a greater man to his country, to his community and to his home.

This brings us to the next call, Meals. And since the farm is probably the greatest source of food in this country, it brings to us a guilty feeling. How will we induce this old earth to yield more food than it has previously?

Shall we dispense with some of those pleasant social evenings in the community and milk an extra cow instead or shall we discontinue our annual Farmers' Picnic next summer and hoe a patch of thistles that day? Or shall we prolong our hours of labor? Are not the farmer's

doing enough along the afore named lines? In order to produce more, there is possibly only one thing left for us to do and that is, "we must learn how" to make two blades of grass grow where only one grew before. Get this knowledge when we will, we must learn.

Nine out of every ten successful stockmen, horsemen, poultrymen or any others, will tell you that some of their greatest losses in their beginning were due to ignorance or lack of good judgment on their part. While we have termed these men as successful, they have been obliged to pay the salary which the teacher in the school of experience demands. Can we not make use of the experience of such men and avoid such losses at the present time, when everything is worth money to us and to the nation.

My opinion, then, is that the young farmer's greatest

duty at the present time is to study agriculture in such a way as to enable him to judge the best from the good and poorest in all things pertaining to the farm. Ignorance of the laws of the country will not excuse, and ignorance of the laws of nature and poor judgment will always carry your money away from you.

Education to the farmer has proven to be the essential to greater production and success, why? Life is too short to be wasted in making the mistakes that others have made and experimenting with the things which others have experimented and tested. We must get the knowledge of these men in a concentrated form by means of education and thus to a greater or less degree commence our life work at the point where they have left off.

We are living in a fast age and competition never

was keener. There are now more men who are specializing in one particular line of cattle, horses or seeds and have become experts along these lines. If we would progress and improve it is with these men of superior knowledge of their particular specialty that we will have to deal, and if we are not educated up to the work we might as easily as not relieve them of the poorest animal or whatever it may be that they have to offer, only to find out later through costly experience.

A lack of proper education to the agriculturist is probably one of the great leaks in the agricultural country and is thus retarding the production campaign as well as individual prosperity. May this then be our aim and duty that we become better informed and of greater service to our country.

Waterloo Co., Ont.

M. A. BECHTEL.

Automobiles, Farm Machinery and Farm Motors.

Firing the Gasoline.

We suppose there is not a motorist in the world who does not know that the mission of the spark plug is to maintain a strong spark or fire that is uniform and continuous. If a spark plug is defective and its operation intermittent there is bound to be endless trouble. A spark plug's failure to properly perform may be due to a number of different reasons, the chief ones of which are usually carbonizing, short circuiting and breakage. The original spark plugs are very similar in appearance to the ones in use at the present time but nevertheless a great change has been made in them since the war started. At first the insulator was made of French clay because this product could be rendered more compact and serviceable than any other, but soon after the European conflict opened it was found impossible to get all the raw material required. This made it necessary for manufacturers to prepare a formula of their own. They examined all the different American clays and finally, after many experiments, they combined ten of them, with the result that an insulator was produced which was free from air-holes and moisture and did not allow any electricity to leak. Nearly any spark plug works well for a short time but it is upon long service that the manufacturers aim to establish a reputation. In making the insulators the clay is rolled and dried until every last vestige of moisture has been removed and until not an air space the size of an atom remains. If the insulator absorbs moisture it becomes a conductor and the electricity which is intended to run through the point of the spark plug escapes to a certain extent into the air. Some idea of the tremendous strain placed upon spark plugs may be gathered from the fact that plugs made for aviation motors are only used one hundred and forty-four hours before being replaced.

The spark plug seems so simple in construction that very few people pay much attention to it. If there is engine trouble, nine out of ten drivers look at the plugs and find out if they are dirty. When they discover that foreign matter has accumulated they generally use gasoline for cleansing. They will find, however, that any good metal polish will clean the plugs with greater speed and accuracy. Their attention should not cease when the cleaning is over because most defective plugs will be found to have become porous. When such a condition arises it is impossible to maintain a strong spark because the electricity instead of concentrating between the electrodes is getting away through the insulator and not producing the results required. A porous insulator will soak up carbon until its value depreciates to a tremendous extent. We do not recommend any particular make of spark plug because there are a number of very excellent ones upon the market. By the same token there are not a few that should not find favor. Your best system is determining what spark plug to use would be to keep a record of the efficiency which each spark plug develops. Try and jot down the date upon which the new plugs are installed and then from time to time make notes of their performance. Such an experiment cannot fail to provide valuable information and make it easy for you to decide which product is the most profitable in the long run. We have gathered the information for this article from an interview with a famous automobile man who toured Canada quite recently. He states that spark plugs should be gas-tight but that they cannot be unless the insulator has been turned out with the utmost care. If the clay in the insulator has not been treated by heat processes and by compression the plugs are certain to be leaky. Leaks take place not only through the insulator but at the surface wherever carbon settles. Our visitor told an interesting story of a single invention that has made the spark plug for most of the tractors very efficient. It was found that a great deal of carbon was being deposited on the ends of the plugs and that there was a consequent surface leakage of current. The lower ends of these plugs are now being made with sharp grooves so that when carbon is deposited the intense heat developed upon the edges of the grooves immediately burns it off. No great trouble has been experienced in making the points for a plug, although doubtless everyone realizes that the material which enters into their composition comes through a special formula. The public states in a general way that the points are chrome nickel steel. As a matter of fact the process which develops them is in most instances a trade secret.

AUTO.

Replenishing Storage Battery.

I have a 12-horsepower gasoline engine with a storage battery. It has not been in use for a few years and I believe the batteries are dead as they will not spark very much. Could I get them replenished? Could I buy the mixture at a drug store? Are storage batteries satisfactory for an engine on a farm? J. B.

Ans.—If the battery has stood dry for a few years it is probable that the plates are spoiled. If, however, the acid has remained in them and kept the plates covered it is probable that they could be re-charged so as to give fair results. Are you sure it is a storage battery or is it what is known as a wet battery? The difference is this: A wet battery is a prime mover, that is, it has power in itself. You can buy the plates and the salt that is used in making the solution and put these in and the battery will give current when connected up. The plates of a wet cell are always of different metals, that is, one is carbon and the other zinc, etc. In a storage cell, however, the plates are of the same metal, namely, lead, or sometimes one of them is a lead compound and the other lead. The liquid used in a storage battery is sulphuric acid. The storage battery is not a prime mover. When originally set up it has no power in itself and in order to put it in a position to give current, that is charge it, electricity is run through it backwards. This charging causes a deposit of salt in the pores of the positive plate, and when so charged the cell gives a very strong current until this salt is driven out into the liquid again.

Now if your battery is really a storage battery you could probably purchase plates that had already been charged in another cell and you could also purchase the sulphuric acid and put them in the jars of your battery and they would supply you with current until discharged, then it would be necessary for you to take this battery to an electric light plant and have it charged again. This is what suggests that it is not a storage battery but wet cells which you have. If the latter, then all you would need to do would be to buy the proper salt and make the solution for the cells provided that both plates of each cell are still in good condition. The zinc plate of a wet cell always wears out in time, being eaten up by the solution when current is being generated. If your plates are exhausted you would need, of course, to get new ones. I would suggest that you get in touch with the makers of your engine and get their advice as to what materials you would need to put the battery in proper condition again. I cannot conceive of an engine being supplied with storage batteries unless it was to be used convenient to an electric light plant where the battery could be readily charged. In putting acid in a storage cell care must be taken that it is not too strong, as a matter of fact unless the acid is spilled out of the cells the liquid should be replaced with distilled water from time to time to keep the surface up to the original level.

W. H. D.

Pulley for Cutting Box.

What size pulley should be used on a 10-inch cutting box. Box to be run by a 2½ horsepower gasoline engine, 400 r. p. m. The engine has a 6-inch pulley on it now. A. J. H.

Ans.—An average speed for a 10-inch cutting box would probably be in the neighborhood of 600 r. p. m. Your engine runs at 400 r. p. m. and has a 6-inch pulley. Therefore diameter cutting box pulley $\times 600 = 6 \times 400$
 $\frac{600}{600} = 4$ in.

which is exactly $\frac{2}{3}$ the size of pulley on the engine. You would probably find in practice that a 4-inch pulley is too small because of the small amount of belt surface in contact with the pulley. I would suggest a 12-inch pulley on the engine and an 8-inch pulley on the cutting box. Or to save buying two new pulleys you might put a 9-inch on the engine and use the present 6-inch for the cutter, provided the size of the two shafts is the same.

The 2½ h. p. engine should run a 10-inch box with fair satisfaction if you do not use carriers or blower.

W. H. D.

Re-charging Dry Cells.

1. How are dry cells recharged with Salammoniac?
 2. Do dry cells last as long when recharged? A. R.
- 1 and 2. Dry cells cannot be satisfactorily recharged.

W. H. D.

Power for Chopper.

This over runs a cutting box, without blower attachment, by one team easily. What size of pulley on shaft would run a chopper to chop fine, and how far from large pulley on shaft would it be best to set chopper, or does it make any difference? A. M.

Ans.—Subscriber has failed to mention three factors essential to a proper solution, viz.: 1st, The length of the sweep arm; 2nd, the speed of the horses; 3rd, the speed for which the grinder was made.

Let us assume the sweep arm to be 10 feet long. Then the diameter of the circle between the horses would be 20 feet and the circumference 63 feet. Let us also assume the horses travel $2\frac{1}{2}$ miles per hour, i. e., 7,920 feet in 60 minutes. This would be 132 feet, or almost exactly twice around in 1 minute. Let us say exactly twice. Therefore 6-inch pinion meshing with 6-foot rim will turn $12 \times 2 = 24$ r. p. m. The 25-inch gear turns the same speed, being solid with the 6-inch pinion. The $2\frac{1}{2}$ -inch pinion being only $\frac{1}{10}$ as large as the gear with which it meshes will turn 10 times as fast which would give 10×24 , or 240 r. p. m. for the "tumbling rod", as it used to be called. This gives us the speed of the large pulley. Let us assume next that the chopper should run at 1,440 r. p. m.

Then diameter of large pulley $\times 240 = 5' \times 1,440$
 Therefore diameter of large pulley $= 5' \times 1,440$
 $\frac{240}{240} = 30$ in.

If the grinder was made for half the above speed, i. e. 720, then a pulley half as large or 15 inches would do. If the grinder should run at 2,880 then the pulley should be 60 inches. Subscriber should ascertain from the makers the proper speed for the grinder, and suit the size of the pulley to that speed.

W. H. D.

Speed of Grinder.

I have a 6 H. P. gasoline engine with an 18½-inch pulley, and a jack with an 11-inch pulley on one end, and an 8½-inch pulley on other end. Belt to run from engine to 8½-inch pulley, and another belt from 11-inch pulley on jack to a pulley 5½ inches on grinder. Will it speed the grinder too much? How is speed from pulleys figured? J. McL.

Ans.—J. McL. omits one fact which is absolutely essential before the question can be answered definitely, that is the speed of his engine. Let us assume this to be 44 r. p. m. Then speed of jack shaft $= 400 \times 18\frac{1}{2}$

$$\frac{8\frac{1}{2}}{870} \text{ r. p. m.}$$

and speed of grinder $= 870 \times 11$
 $\frac{5\frac{1}{2}}{1,740} \text{ r. p. m.}$

If, however, the engine runs 800 r. p. m. multiply by 2, if 300, multiply by $\frac{3}{4}$.

1,740 r. p. m. might be considered about an average speed for grinders, or possibly a little below average. Some are made to run at about 1,000 r. p. m. and others at 3,000 to 3,500 r. p. m. J. McL. had better find out from the manufacturer of his grinder what speed it was intended to run at, and then alter his pulleys to obtain approximately the speed intended.

W. H. D.

Lubrication and Oil Engine.

1. A neighbor of mine uses ordinary machine oil in the oiler of his gasoline engine. He says it is thicker and wears better than the proper cylinder oil; is this advisable?

2. In a kerosene oil engine, 3 H. P., which is the more satisfactory and cheaper to use, high-grade or low-grade kerosene?

3. Would it be possible to fit up a small electric bulb and wire to magneto of engine, to light small engine room; the engine has a built-in magneto and runs continuously when engine is running. C. D. P.

Ans.—1. Machine oil is not as good for gasoline engines as the regular gas engine cylinder oil. A thick oil does not spread over the piston and cylinder as quickly as the thinner oil and since it forms a thicker film on the surface more of it burns up at each explosion, so that the lubrication is not really as good as with the regular cylinder oil.

2. High-grade kerosene will probably give a shade better results and probably a little less trouble with carbon but the difference is not very pronounced.

3. Not unless magneto was designed for lighting

as well as ignition purposes. There are only a few magnetos with which the plan could be worked.

W. H. D.

Ammonia Refrigeration.

I am interested in a scheme for refrigerator by using ammonia gas or something of the kind to produce freezing conditions. I would then keep beef, etc., through the summer by freezing it. Could you give me some idea of the construction, operation, expense, and practicability of such a scheme? We have ice but that will not freeze the meat.

J. F. S.

Ans.—This enquiry does not state the size of plant in mind. We infer, however, that a small plant is intended. To keep a room of 1,500 cubic ft. that is 10 x 10 x 15 at 30 degrees, that is two degrees below freezing, would require a two-ton machine, which in an ammonia plant would cost from \$1,500 to \$2,000. The building would have to be well insulated and would cost probably in the neighborhood of \$1,000. A one-ton machine would cost probably two-thirds to three-quarters as much as the above. Carbon dioxide machines are cheaper, e. g. a Co² machine of three-ton capacity would cost about \$1,000. If the correspondent is thinking of this refrigerating plant from a farm standpoint then it is entirely out of the question because of cost and expense of running and for a commercial plant the sizes given would be too small to make it profitable.

W. H. D.

Water Power.

What power could be secured from water enough to fill an eight-inch pipe with 20 feet fall and 300 feet? What kind of a water wheel would be suitable for same, and where could it be secured?

J. H. S.

Ans.—It is very difficult to tell just what is meant by this query. The enquirer does not state what head or grade the water is subject to when filling the pipe. He does not state whether the pipe is vertical or horizontal. I'm going to make a guess at what he means, and if I guess wrong, he will have to be more explicit next time. I suppose there is a little stream of water winding its way down a valley at a very slow grade and at a certain point if a measuring weir were built across the stream with circular opening 8 inches in diameter there is just enough water to always keep that hole running full and no more, that is on the upper side of the weir the water would not stand above the hole, but just level with the top. The amount of water that would flow through this orifice is not great being only the least shade over 1 cubic foot per second. Theoretically this should develop about 2 1/4 horse power in falling twenty feet, but waterwheels are only about 80 per cent. efficient, which would reduce it to about 1 3/4 h. p. for a 20-foot fall. Since 300 is 15 times as great as 20 the power would be 15 times as great or about 26 horse power for a 300-foot fall. The proper style of wheel to use for either head is an impulse wheel, which may be procured from the Pelton Water Wheel Co., New York.

W. H. D.

THE DAIRY.

Western Dairymen Gather in Convention.

A great dairy convention was recently held in Winnipeg, at which dairymen from the three Western Provinces met and discussed problems of vital interest to them. There was also a dairy show, with a large number of entries from Alberta, Saskatchewan and Manitoba. The butter and cheese made a high score, which is indicative of the quality of product manufactured on the Prairie. The highest score for butter was 97.62, with a large number of entries scoring over 95. June cheese scored as high as 97.1; July cheese, 96.8; and September cheese, 97.2. The first-prize entries in the cheese and two classes for butter were from the Province of Manitoba. The cheese and butter industry in the various Provinces was reviewed and discussed with the object of further enlarging the industry and improving the quality of dairy products. Grading of cream and butter in the West has done a good deal for the dairy industry, and to-day we find the Western butter securing a place on the best markets. Pasteurization of cream assists in the production of a uniform quality of butter. The program did not deal only with the manufacture of dairy products, as ample time was given to the discussion of ice houses, the storing of ice, winter feeds for dairy cows, new grasses and clovers for meadows and pasture, herd records, etc. At this convention a move was made towards forming a National Dairy Association, and a committee representing Manitoba, Saskatchewan and Alberta was appointed. This committee will draw up the basis for a National Dairy Association and submit it to the different provincial associations.

The following excerpts are taken from the address of L. A. Gibson, Dairy Commissioner for Manitoba. They show the growth of the industry and indicate some of the factors tending to the increase in the output of creamery and cheese factory.

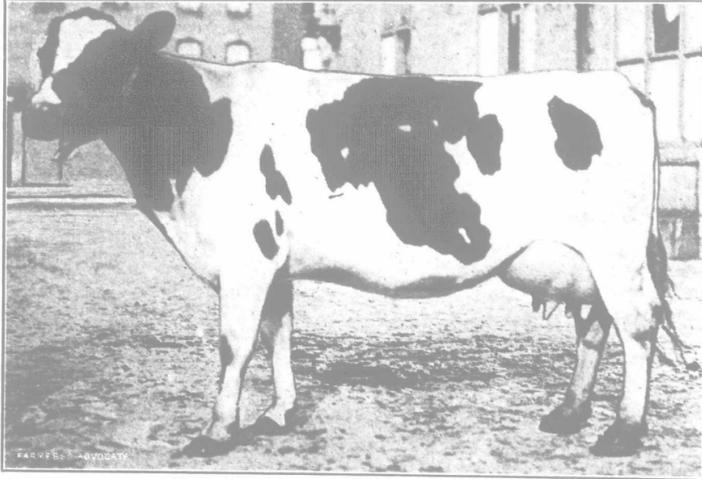
"As the creamery side of the dairy industry is by far the most important, it serves as an indicator by which we gauge the expansion which is taking place. Following are the numbers of creameries operated in the province, the butter output in pounds and the annual increase in production for the past six years:

Year	No. of Creameries	Butter Output, Lbs.	Average Price, per Lb.	Selling Value at Creameries
1912	20	2,931,138	28.0	\$ 802,718.64
1913	36	3,929,622	27.5	1,080,646.05
1914	35	4,761,355	26.5	1,261,759.07
1915	35	5,839,667	29.0	1,693,503.43
1916	37	6,574,510	31.0	2,038,089.10
1917	41	7,526,356	38.5	2,897,647.06

Pasteurization of Cream for Butter-making.

"One of the outstanding features in connection with the past year's creamery business, that deserves more than passing notice, is the adoption of effective pasteurization of cream for butter-making by a large number of the creameries. After considering all literature available, the experience of the Dairy Commissioner for Alberta, and the results obtained by our own branch, from practical experience gained during 1916, we realized the necessity for the proper pasteurization of all cream for butter-making, thus making it a safer article of food, and preventing the development of a fishy flavor when placed in storage. We have been strong advocates of this principle, and it is pleasing to report that 78 per cent. of all butter manufactured this year has been made from properly pasteurized cream.

"Although the equipment necessary to perform this work entails a large expenditure, the creamery operators have been prepared in a large number of cases to meet this cost, and are fully alive to the importance of maintaining the high standard which the Manitoba butter has now reached. This, perhaps, is the finest tribute which could be paid by this branch to the creamerymen of Manitoba, and their co-operation in this respect has been and will continue to be invaluable to this branch in its efforts to develop and improve the dairy industry in our province. One operator, who required persuasion before purchasing a pasteurizer at a cost of \$1,050 in the month of May, volunteered the statement in August that the vat had already more than paid for itself in the extra prices received for his butter through



Highest Scoring Holstein at Guelph, 1917.

Entered in the dairy test by H. C. Hammer, Norwich, Ont.

increased grades. This fact is still more significant when we realize that a large percentage of the increased prices received by the creamerymen, as a result of improved methods of handling the cream, finds its way into the pockets of the patrons of the creameries.

"The temperatures generally advocated for pasteurizing cream for butter-making previous to 1916 were 140 to 145 Fahr., held for twenty minutes. These temperatures effectively dispose of the micro-organisms, and to a lesser degree eliminate the free, fatty acids from the butter-fat, but at least some of the unorganized ferments or enzymes will survive to carry out their function of deteriorating the resulting butter. We found that in order to secure the results we really wanted it was necessary to use somewhat higher temperatures than the above, and the temperature of 165 to 170 Fahr., held for ten minutes, was recommended, as this temperature is sufficient to destroy both bacteria and enzymes, which are undoubtedly responsible to a very large extent for the deterioration of butter in storage.

"We found that butter made from cream with a low acidity (.2 to .3 per cent.) and treated as above, will hold up in storage for a period of twelve months, where butter made from raw or improperly pasteurized cream will show a decided deterioration in a few months. The general adoption of pasteurization, with a low acidity cream, will place our dairy industry upon a practically new basis, more particularly in relation to the export trade. Very satisfactory reports have been received from a number of wholesale produce firms, both east and west, in regard to the butter which was made from properly pasteurized cream."

Cream Grading.

"The dairymen who produce a sweet, clean-flavored cream that will make a first-class, clean-flavored butter, should undoubtedly be recompensed for the superiority of his article. A large number of creameries have

graded their cream conscientiously during the year according to the grade adopted at our last convention, making an enviable reputation for themselves and increased profits for their patrons, as well as establishing a name for Manitoba creamery butter on the outside markets. A few of our creameries, however, graded differently, or did not grade at all, and their butter was no credit to their creameries or the province.

The creamerymen have it in their power to make a wonderful improvement in the quality of cream received at the creameries, by grading conscientiously and paying for it strictly on the quality basis. By adopting this they are working in the interest of their patrons and the dairy industry as a whole.

"The demand upon the department's grading service has increased during the year. The wholesale produce trade in both Eastern and Western Canada, as well as our local produce merchants, are strong advocates of government grading, and encourage the operators to make full use of it. It is especially gratifying to note the general and substantial improvement in the quality of this year's butter production. A total of 5,854 churnings were scored and graded during the year at Winnipeg, Brandon, Shoal Lake, Dauphin and Russell.

"At the beginning of the butter-grading season the announcement was made that the department would issue special grade certificates only on butter that had been made from properly pasteurized cream, giving a negative reaction for peroxide by the Storch test. A laboratory was established in the Department for the testing of samples of all butter examined for this grading, as well as research work. This addition enabled us to give the creameries a much better service.

"Ninety-six carloads of creamery butter were exported from the province during the year, or about 2,250,000 pounds, valued at almost a million dollars, all of which were scored and a government grade certificate issued. This exportation is in addition to supplying our own requirements."

Cream-Buying Stations.

"At buying stations the practice is to weigh and test the cream and dump it into large shipping cans for forwarding to the creamery. In this way cream from

buying stations arrives at the creamery in mixed lots, and although inferior cream may be found, the identity of the original producer has been lost, and grading or paying for it on the quality basis is greatly impaired, and in the majority of cases impossible. Unless regulated it promised to jeopardize the creamery business and re-establish dairy butter conditions.

"Amendments were made to the Dairy Act during the year 1916, with a view to remedying these conditions and improving the methods of handling cream at buying stations, and thus protecting the quality of our creamery butter. The Act defines the sanitary conditions under which a cream-buying station must be operated before a license will be granted.

"At the beginning of the season an inspector was placed in charge of this work, and given instructions to enforce the buying-station regulations in accordance with the Act. Twenty-seven buying stations were operated at the beginning of the season. Twenty complied with the regulations and received licenses to operate; two discontinued business and five decided to close rather than comply with the regulations of the Dairy Act."

Favors a National Dairy Organization.

EDITOR "THE FARMER'S ADVOCATE."

I am interested in your editorial in the issue of January 31, entitled, "A Dominion Dairy Council." I have felt for some years that a Dominion or National organization of the dairy interests of Canada could be of great service, and I have advocated the formation of some such organization on more than one occasion. There has been a tendency, I think, to depend rather too much on Government departments to look after the interests of dairymen in certain particulars. There are some things a Government department can do, but there are other things it cannot do. There are times when the interests of the dairymen clash with those of some other section of the community. The Government represents all sections, and, obviously departments have difficulties if they attempt to deal with some questions from the dairymen's standpoint only.

I was impressed with the need of a general organization among the dairymen during recent months when certain orders-in-council affecting the dairying industry were under discussion. Individuals, representing associations in some cases, representing themselves in others, entered protests and submitted resolutions on the subject, but there was no cohesion or unanimity among them, and in many cases the arguments presented were not sound. If one organization could have

spoken reasoned law would

Some served the tain funct They have This is du rions are outlook w a national are more branches branches tion which greater inf ing singly.

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The fit Fruit Gro Hotel, To thusias, convention owing to during the of the ma and is lik material h and yet th was obtai Many gro enormous farm orcha

While Catharines been endu might mee downheart and hope f that he di safe in sta Ontario fo a great m almost t and berrie rainfall w end of Jan per cent. c 15 per cent almost a to crop less t before they ping or g just closed Concluding ditions of 1 not be poss 1918 than every possi saving, ho handling of us to elimin energy and that can l much neede

The ma by G. E. M laboring in regard to t marketing o refrigerator Canada ar potato cars so we hav for the tra are approx service of belonging t American r Canadian r 300 potato not get bac potatoes re vances, whi at points on is a deman turnips are his own mi they could they seem endeavoring warranted. apples, excl moved, and came to Ont 450 carloads reached the balance was States mar barrels, yet held over b practice of purposes ha

spoken for the whole Dominion and presented well-reasoned arguments it is more than probable that the law would have remained unchanged.

Some of the existing organizations have in a measure served their usefulness. They have been shorn of certain functions without acquiring others in their place. They have not kept pace with the changing conditions. This is due partly to the fact that the existing organizations are local in character and do not get the broad outlook which is necessary to deal with the industry on a national basis. The dairy associations as they exist are more or less interested in one or probably two branches of the dairy industry. There are other branches which should be considered, and an organization which included all these interests would wield much greater influence than the separate associations can act singly.

J. A. RUDDICK, Dairy Commissioner.

HORTICULTURE.

Labor and Markets Discussed at the Ontario Fruit Growers' Convention.

The fifty-eighth Annual Convention of the Ontario Fruit Growers' Association was held in the Carls-Rite Hotel, Toronto, on February 14 and 15. The enthusiasm, which formerly was so pronounced in these conventions, was lacking to a certain extent this year, owing to the rather unfavorable seasons experienced during the last three years, and the general uncertainty of the market. Labor has been exceedingly scarce, and is likely to be more so. Equipment and spray material have increased in price by leaps and bounds, and yet the price of the product, when by chance a crop was obtained, has not been correspondingly high. Many growers have become discouraged, and the enormous demand for meats and grain has caused the farm orchard to be neglected.

While the President, F. A. J. Sheppard, St. Catharines, did not belittle the hardships which had been endured, or the difficulties which fruit growers might meet, he declared that as a class they were not downhearted, and would go back at it again with faith and hope for better things in 1918. The President said that he did not have accurate figures at hand, but was safe in stating that the apple crop of the Province of Ontario for the year 1917 was the lightest experienced in a great many years; in fact, it might be termed as an almost total failure. Peaches, plums, pears, grapes and berries also suffered heavily from the excessive rainfall which continued from early spring until the end of July. None of these fruits averaged over 50 per cent. of a crop, and some varieties were as low as 15 per cent. Tomatoes in the Niagara District were almost a total failure, due to the wet. With the grape crop less than 60 per cent. at the best, an early frost before they were fully ripe spoiled half of them for shipping or grape-juice purposes. Altogether the year just closed was a disastrous one for the fruit growers. Concluding, Mr. Sheppard said: "Under existing conditions of farm labor and high cost of everything, it will not be possible for the farmers to produce much more in 1918 than they did in 1917, but we should give them every possible assistance in trying to do so. The great saving, however, must come through the economic handling of what we have, and it is up to each one of us to eliminate every particle of waste both in food and energy and learn to get along with less of the foods that can be transported overseas, and which are so much needed by our gallant boys at the front."

Transportation.

The matter of transportation was fully discussed by G. E. McIntosh, who, during the last year, has been laboring in the interests of Canadian fruit growers. In regard to the car situation, particularly as it affects the marketing of fruits and vegetables, he said that the total refrigerator car possessions for railways operating in Canada are 4,750. To this might be added also 475 potato cars, fitted out by the C. P. R. and C. G. R., so we have 5,225 cars suitable, but not always available, for the transportation of fruit and vegetables. There are approximately 201,614 cars of all kinds in the freight service of Canadian railways. There are 21,000 cars belonging to Canadian railways now in the service of American roads, while only 8,000 foreign cars are on Canadian tracks. The C. P. R. has at the present time 300 potato cars in the Eastern States, which they cannot get back, yet there is danger of many carloads of potatoes remaining unmarketed in the Maritime Provinces, while the turnip crop of probably 300 carloads at points on the Government lines, and for which there is a demand in Boston, are practically tied up and the turnips are spoiling. The speaker was convinced in his own mind that the Canadian roads have done what they could to market the crop to best advantage and they seemed to accept their part as a national duty, endeavoring to give special attention where the demand warranted. Nearly 2,000 carloads of Nova Scotia apples, exclusive of shipments to local points have been moved, and of this number approximately 800 carloads came to Ontario, being distributed in 71 different centres; 450 carloads were marketed in Quebec, and 350 carloads reached the market west of the Great Lakes. The balance was distributed in other Canadian and United States markets. It had been estimated that 100,000 barrels, yet to be moved from the Province, are being held over by the growers. Mr. McIntosh said that the practice of holding cars and using them for warehouse purposes had been dealt with by an order of the Food

Controller, which was an important piece of legislation. However, the speaker thought that the Food Controller should go further and give some protection to producer and shipper of fruits and vegetables by making it compulsory for the consignee to accept shipments of perishable goods ordered by them, when they arrived in good condition. The holding of carload shipments at destination on the least possible chance of complaint against the goods, in order to get a reduction in price, was condemned. The speaker expressed himself in favor of Government control of Canadian railways. The United States, he said, had recently taken over the control of its railways, and some of the immediate benefits to the shippers were as follows: 1, Only companies that require financial assistance will be given such; 2, equipment will be provided and supplied where needed, regardless of competitive conditions; 3, freight will be moved via the shortest route regardless of giving the originating carrier the long haul; 4, General advances in rates will not be made except by the Government itself, and then only after the public and affected interests have been heard.

War and the Farm Apple Orchard.

The Convention was infused with considerable optimism by the address of Dr. A. J. Grant, Manager of the Thedford Fruit Growers' Association. The Effect of the War on Farm Apple Orchards was the theme discussed, during the development of which he depicted the conditions throughout the country which had led up to the present state of affairs. The history of the past six seasons led the speaker to concede that it required a heap of courage and no little faith on the part of the farmer to stay with the game and take care of his trees. The result has been or will be the elimination of a good many orchards. "The elimination of many of these orchards," said Dr. Grant, "has been a blessing in disguise as they are surely travelling toward an untimely death, and with their demise will disappear at least some of the low-grade fruit that gets on the market in favorable seasons; but we may well feel concerned lest the process of elimination proceed too far and the apple industry of this Province receive a rude jolt from which it would not easily recover. Let us remember that you cannot grow an apple orchard in a night. It required 12 or 15 years to get our standard varieties producing commercially. What of the tremendous increase in the importation of apples during the past few seasons? Does any one imagine that this state of affairs is going to make it any easier for the Ontario apple grower? We are losing our best markets to foreign trade because we are failing to produce sufficient high-class fruit to supply the demand. We have too long soothed ourselves with such pap as the 'superior flavor of Ontario apples.' We can produce an apple of superior flavor to that produced any other place in the world, but the realization of this great blessing is utterly useless unless we get busy and grow them in sufficient quantity to supply the trade." Dr. Grant did not speak to the commercial growers particularly, who were quite capable of looking after their own business, but he regretted very much that so many farm orchards, which produced a heavy percentage of the Ontario apple crop, were being allowed to go back. As an employer of labor he realized the many difficulties confronting the grower since the war commenced, but he thought fruit a necessary article of diet, and all producers should "carry on" to the end.

"Many of our farm orchards," said the speaker, "are too small for profitable handling, and it would seem to me that those representing anything less than 150 to 200 trees should be leased or operated on shares by some one qualified for the work. Several such orchards in the same locality under one management would afford power-spray machinery and other equipment to run the business successfully. Good money can be made by renting a few small orchards at 50 to 75 cents per annum per tree for a term of 5 or 6 years. The farmer with a neglected orchard on his hands will realize a great deal more money in this way and his property will be getting better instead of worse. Many of our co-operative associations are made up of these small orchards which might be readily placed in the hands of fewer growers, to the profit of all concerned, and to the lasting benefit of the apple industry at large. The number of fruit growers' associations in Ontario is decreasing every year, and a small orchard is the big difficulty. I would like to see the Co-operation and Markets Branch of our Provincial Department of Agriculture undertake to re-organize some of our associations along these lines, and success will surely attend their efforts."

The method of the Thedford Fruit Growers' Association in regard to pruning has been to employ a gang of men and have them prune the members' orchards. They receive their wages every Saturday night out of the Association funds, and the amount is charged against the grower's account to be deducted from subsequent sales. Growers were admonished to maintain the fertility of the orchard, especially through the use of farm-yard manure, which could be applied in the winter-time. Pruning was recommended and declared to be necessary. This should be made a winter job, during war-time any way. The damage from winter pruning, the speaker said, had been negligible. The sod mulch system on sandy loam or light clay loam was recommended. Growers should not cut the grass, however, and carry it away, as it belongs to the ground. Some of the finest and best colored apples ever grown by the speaker were produced in an orchard where this system was in vogue.

In regard to spraying Dr. Grant mentioned two applications which he considered indispensable, the one just before the blossoms open and the one when the petals have about all fallen. He thought two good

drenchings at these periods were necessary in order to have any certainty of a good crop. The dormant spray might be omitted if one is sure that the orchard is free from San José scale.

In case of a large crop this season growers will have to depend very largely upon female help; the young women and girls of this country have responded nobly to the call for help from all quarters. Their assistance during last year's fruit harvest was invaluable, and we should be ready to pay par value for their labor every time. In conclusion, Dr. Grant urged the Convention not to give way to the wails of pessimism, which are heard practically every year, but to lead in the attempt to rejuvenate the farm apple orchards of Ontario.

Economical Sprays for 1918.

Economical Sprays and Spraying for 1918 was the subject of an address by Prof. L. Caesar, O. A. C., Guelph, to whom the Convention listened with a great deal of interest. This matter was divided into two parts, namely, Insecticides and Fungicides.

In regard to insecticides, Prof. Caesar mentioned Paris green, but did not dwell on it, stating only that it would probably cost somewhere between 60 and 70 cents per pound. The prices quoted by the speaker throughout his discourse were those which one would have to pay on the open retail market. He made it plain that organizations or co-operative associations could buy much more cheaply. Concerning arsenate of lead, it was explained that it could be procured in both the paste and powder form, and one seemed to be practically as good as the other, except that the powder form was easier to ship, was unaffected by evaporation or frost, and a little easier to mix before using. The powder form is practically twice as strong as the paste and, therefore, costs about twice as much, but only half as much per barrel is required. It was believed that there will be a sufficient supply of arsenate of lead available. The price of 100-lb. drums will likely be about 20 to 25 cents per pound for the paste form, and 40 to 48 cents per pound for the powder. Where arsenate of lead has been frozen, Prof. Caesar advised that it be mixed with a little more water and used a little stronger, perhaps 2½ pounds instead of 2 pounds.

An insecticide known as arsenate of lime, also called arsenate of calcium, or calcium arsenate, has been recommended very strongly by some. This is sold both in the paste and powder form, although mostly in the powder. The powder is approximately twice as strong as the paste; both are white substances, very similar in appearance to arsenate of lead. As a rule they contain about one-fifth more arsenic and, therefore, may be used in about one-fifth less quantity than arsenate of lead. They are also considerably cheaper. Arsenate of lime will cost from 14 to 15 cents per pound for paste, and from 25 to 32 cents per pound for the powder. Roughly speaking, therefore, arsenate of lime costs only about two-thirds as much as arsenate of lead. Arsenate of lime has proved a very good insecticide in Nova Scotia, but Prof. Caesar said that he did not consider it safe to recommend it for general use under Ontario conditions. Investigators in the United States were still in doubt in regard to it, and experiments in Ontario did not demonstrate its good qualities and trustworthiness sufficiently to warrant its use throughout Ontario, except under certain conditions. Prof. Caesar compromised in regard to the use of arsenate of lead and arsenate of lime by advising that the latter be used instead of lead on apples just before the blossoms burst, because foliage at this stage is not nearly so liable to spray injury as later. The best strength to use would appear to be ¾ of a pound of powder form, or 1½ pound of paste to 40 gallons of dilute lime-sulphur. For all later sprays on apples, and also for all biting insects on pears, plums and cherries, he thought growers should still rely on arsenate of lead.

It was also advised by the speaker that the amount of arsenate of lead used in the codling moth spray on apples and pears this year might be lessened, and instead of using 2 pounds of paste, or 1 pound powder, use 1½ pounds paste or ¾ pound of powder for each forty gallons of liquid. In regard to potatoes, he said: "I should use about 1½ pounds of arsenate of lime powder, or 3 pounds paste, either to 40 gallons of Bordeaux mixture or to 40 gallons of water. The latter should contain about 6 pounds of freshly-slaked stone lime or 8 pounds of hydrated lime; the lime is used solely to prevent burning."

In connection with fungicides, Prof. Caesar spoke thus concerning bluestone: "This year bluestone will likely cost about 15 to 18 cents a pound in fairly large quantities. I might mention here that there are a number of fruit growers who prefer Bordeaux mixture to lime-sulphur. There is no doubt that it adheres better to the leaves and fruit in wet weather, and were it not for the fact that it is less convenient to use, costs more, and russets the fruit badly some years, there would be few good reasons for preferring lime-sulphur to it for any but the first spray. It is the codling moth spray, as many have known for years, that causes most of the russetting, so it would be wiser to use lime-sulphur for it." The opinion was expressed that many growers are throwing away money on late sprays. If the apples are protected up to the 20th of June they are pretty sure to be clean. It was also said that lime-sulphur will likely be available in sufficient quantity this year, but would cost at least \$1 a barrel more than last year. In regard to soluble sulphur, Prof. Caesar said: "Soluble sulphur is also available and wherever there is difficulty in securing a sufficient supply of lime-sulphur, especially in San José scale districts, should be substituted for the first spray, and if thoroughly applied will give good results. I do not recommend it for any later sprayings, and consider it unsafe to use with arsenate of lime or any other arsenical."

The two most important sprays in districts where San José scale does not exist are the one just after the blossoms fall, and that just before the bloom. These two sprays, most years, should give almost perfectly clean fruit. In orchards free from San José scale and almost free from oyster-shell scale, weaker solutions might be used. Prof. Caesar said that in such orchards he could see no good reason why the first application of lime-sulphur should not be much weakened and the dilution be made 1 gallon to 15, or even 20 gallons of water instead of 1 to 7. This would mean a saving of at least 40 cents per barrel.

Strawberry Growing in Prince Edward County.

Strawberry production has grown to large proportions in Prince Edward County in the last five years, and the methods practiced there were outlined by Howard Leavens, of Bloomfield. The largest demand emanates from the canning factories, of which there are 15 or 20 in the county, and these have paid an average of about 9 cents during the last three years. Last year 10 cents per box was paid for the whole crop. Some berries were shipped, but an additional 4 cents per box must be obtained to pay for express crates, boxes, etc. It was explained by the speaker that the soil on which these berries are grown is loam, and some is black ground. One year previous to setting the land receives a heavy coat of manure and is planted with a hoe crop. Potatoes have been a favorite with which to precede as well as follow a strawberry crop.

The main varieties grown have been the Wilson, Senator Dunlap and Parsons' Beauty. Possibly 75 per cent. of the berries grown are the Dunlap, but as the Wilson is not a heavy yielder and is a softer berry the other varieties take its place. Season before last, a blight affected a large number of patches, and after two or three pickings the plants wilted and died. This blight affected practically all varieties except a few plantings of Wilson berries and they seemed immune, a full crop being harvested from them. Whether this was due to the variety of land or conditions under which they were handled, it was not known.

Some growers, in setting the plants, especially where a number of acres are set, are using the tomato planter for this work. This machine with three men will set and water from 12,000 to 18,000 plants a day, and those who have used it claim that it is equal to hand setting and saves a great deal of time. Mr. Leavens said they had found that it pays to set plants as early as possible in the season, so as to give them a good root before much dry weather sets in. Fall setting had been tried but spring planting was more suitable to conditions there. Where the land is fairly clean of weeds two crops are taken off before the patch is plowed up, although the second crop is not expected to be as heavy a one as the first. Some plow two furrows through the centre of each row and cultivate this down after the first crop is harvested, and if the season is favorable the new plants will run during the fall and make a patch for another year, practically as good as a new-set patch. The weather conditions have a great deal to do with this practice, and also the conditions of the land. Sandy loam can be plowed at any time, but some of the other soils, especially mixtures of clay, have to be plowed after a rain, and this does not always come at the right time. It has been found necessary to cover the plants in the fall with a coating of straw. The yield of berries varies a good deal according to the care and attention given the plants, and the season. One grower put as many as 10,500 quarts into the factory from one acre, and another 18,000 from two acres.

These parties are making a specialty of berry growing. Help is obtained largely from the town and villages.

Food Control and the Licensing System.

The Dominion Fruit Commissioner, D. Johnson, reviewed the development of food control in Canada, and enumerated a few of the facts discovered by the Fruit and Vegetable Committee. The public expected cheaper food as soon as the Controller was appointed, said Mr. Johnson, but the shortage of foodstuffs would not permit of such. Over 40,000,000 men turning from productive to destructive efforts made food very scarce, and the Food Controllers of Canada and the United States agreed that substitution of perishable products for those most in demand overseas was the plan to pursue. Speaking concerning the wholesale fruit and vegetable dealers of Canada, the Commissioner said they were not exacting an unreasonable toll for services rendered. An investigation showed that their average gross profit was only about 10½ per cent., and in most cases it cost them 9 per cent. to do business. In very few cases did their net profits exceed 2 per cent. It was thought at one time that fruit and vegetable distributing agencies might be established, but after the investigation it was decided that the present system was more economical and efficient than a Government one would be. However, no undue speculation will be allowed. In regard to potatoes the Committee found a surplus of 10,000,000 bushels last fall, but, owing to transportation difficulties in the United States, buyers from that country had purchased heavily in Eastern Canada, thus reducing the surplus and maintaining strong prices. There is still a surplus, and Mr. Johnson said he looked for a break in the market when potatoes began to move freely.

Concerning fruit prospects for 1918, the Fruit Commissioner said he did not look for a big crop of apples as orchards were not in the proper condition to produce. He advised the specialist to look after his orchards well, but the farmer, with only a small orchard, should pay particular attention to the production of grain and meat. All were admonished to assist in every way possible in the conservation of food and add as much to the country's production as they could.

The Licensing System of the Food Controller's Department was outlined by J. R. Hastings, Vice-President of the Ontario Fruit Growers' Association and a member of the Fruit and Vegetable Committee of the Food Controller. He intimated that the system of licensing the handlers of food products had come to stay, and the time has come when profiteering in foodstuffs is a thing of the past. There have been abuses, but these were perpetuated by a class coming between the producer and the wholesaler. Mr. Hastings remarked that dealers must understand that excessive profit will not be permitted, and while it is necessary to make a larger profit on some things than on others, in order to cover losses, the year's business should show only a reasonable gain. The Food Controller's orders, as they affected the distribution of fruits and vegetables, were mentioned and commented upon. One which prevents the commission man from selling to himself caused some little apprehension on the part of the members present, who claimed that it might, at times, interfere with the speedy cleaning up of a market which showed signs of breaking. In this regard Mr. Hastings said that the conditions would be considered in such a case, and if the commission man acted in good faith without the aim of making an undue profit thereby the order would probably permit it.

The Outlook for 1918.

An interesting session of the Convention was that in which a number of growers gave their opinions in regard to the outlook for different kinds of fruits. Those speaking to this topic were: Grapes, F. G. Stewart, St. Catharines; Peaches, Hamilton Fleming, Grimsby; Plums, A. Onslow, Niagara-on-the-Lake; Pears, H. T. Foster, Burlington; Cherries, W. A. Mitchell, Port Elgin; Small Fruits, Leonard Harrison, Waterford. In the majority of cases these growers did not care to make their assertions too positive until the results of the winter's cold had been determined.

Mr. Stewart was apprehensive lest the Federal Government should prohibit the manufacture of native wines. This would throw 8,000 tons of grapes on the market which formerly have gone to the wineries. He estimated the crop in Lincoln, Welland and Wentworth Counties at about 17,673 tons this season. About 8,000 tons are annually used for wine and 950 tons for grape juice. This will leave about 8,723 tons to be marketed in baskets. The grower must sell these at 22 to 25 cents per basket to make a living wage. Baskets formerly cost \$28 per thousand, and they were handled for \$1.50 per thousand. Now baskets are quoted at \$59 per thousand, and it will cost \$3 per thousand to handle them. If the 8,000 tons of grapes which have annually gone into native wines were put upon the market in baskets it would mean 800 carloads of 10 tons each. The grape season extends over a period of 4 weeks, of 5 shipping days each, or 20 days. Thus 40 extra carloads of grapes each day would be put on the market in baskets. If they sold for 14 cents per basket it would leave the grower only \$3.40 per hundred for cost of production and profit, and Mr. Stewart doubted very much if they could all be sold.

Changes in Fruit Packages.

P. J. Carey, Toronto, described the different fruit packages in use in Canada, and mentioned a few of the obstacles their peculiar dimensions and construction presented. He strongly advocated that a standard block be made and furnished to the manufacturers so a standard 11-quart basket could be made. The meeting in this connection adopted a resolution recommending that the Minister of Agriculture declare a standard for 11-quart baskets with the corners more square than at present. Motions were also carried asking that the Government adopt the United States barrel and box as a standard in Canada. It was agreed that trade between the two countries would be facilitated by having uniform packages.

Officers.

The following officers were elected for 1918: President, R. W. Grierson, Oshawa; Vice-President, J. R. Hastings, Winona; Secretary, P. W. Hodgetts, Parliament Buildings, Toronto. The Directors are: R. B. White, Ottawa; E. Casselman, Iroquois; Howard Leavens, Bloomfield; J. G. Wait, Colborne; R. W. Grierson, Oshawa; W. F. W. Fisher, Burlington; J. R. Hastings, Winona; F. A. J. Sheppard, St. Catharines; Chas. Howard, Hagersville; Thos. Rowley, Leamington; A. Stephenson, Longwood; J. C. Harris, Ingersoll; W. Mitchell, Clarksburg. Representing O. A. C., Prof. J. W. Crow, Vineland Experiment Station, E. F. Palmer. The Executive Committee will consist of the President, Vice-President, Secretary, F. A. J. Sheppard and W. F. W. Fisher.

The Tenth Annual Ontario Corn Show.

The tenth annual Ontario Corn Exhibition was held in Chatham the week of February 12. Those who had the Show in charge are to be congratulated on the character of the exhibition staged. Several conditions existing in 1917 combined to handicap the seed corn situation, not only in Ontario but over a large portion of the continent. A rather late, cold spring, early fall frost, poor drying weather in October, and zero temperature early in the season, have either destroyed the germinating power of corn or greatly weakened its vitality. One speaker characterized the situation as "a national calamity". For a number of years the demand for seed corn for silage purposes in Canada has been increasing by leaps and bounds. This seed has been largely supplied from the Southwestern part of Ontario or from the Northern States. Corn growers have been selecting and breeding up strains which would mature in the northerly districts. This year, however, it is claimed that there is not enough Ontario-grown seed to plant even the normal acreage in the corn-growing counties, let alone furnish seed for silage purposes. Corn has become very popular as a crop with stockmen. A large bulk of nutritious feed can be grown to the acre consequently if seed corn cannot be procured stockmen will be considerably handicapped in their feeding operations. Speakers at the Corn Show dealt with the situation very fully, and it was believed advisable that Ontario-grown corn should be kept in the districts where corn matures in a normal season so that there would be a seed supply for 1919. Seed for silage purposes may be secured from the Southern States, and while there is little hope of such seed producing a crop that will mature in Ontario it will make very good silage. It was strongly advised that the corn be tested before planting in order that seed enough would be sown to ensure a fairly good stand. As one man stated, "Sow a fifth more than you have been accustomed to do, as it is better to cut out a few

stalks than to have vacant spaces in the field." The attendance at the show surpassed that of past years.

The entries at the Corn Show were not on a par with previous years. However, there were about 520 entries in corn, and 140 entries in grains and small seeds. A good deal of the corn looked very good but much of it was believed to be low in germination. The grain exhibit was particularly good; there being as many as twenty entries in one class of oats. Practically all were especially well graded. The program given in connection with the show was highly instructive. The speakers dealt with practical problems which were continually confronting agriculturists—corn growers in particular.

Plan for 1918 Seeding.

Dr. C. A. Zavitz, of the Ontario Agricultural College, delivered the opening address, on Wednesday, February 13, and pointed out the great importance of the farm crops of Ontario. The oat crop, for instance, was said to have a value equal to half the other farm crops, or to one-half the value of all beef, pork and veal of the Province. The yield of the farm crops has been greatly increased in the past by careful seed selection. However, it is believed that further improvement can be made and it was advised that the selection of seed commence at once while there is a fair quantity in the bins. Experiments have shown that the large, well-graded seed yields considerably more than small seed. Dr. Zavitz claimed that there were too many varieties of potatoes and outlined experiments which had been carried on at the O. A. C. relating to the production of the best seed. The Northern Ontario-grown tubers have been found to give heavy yields in Older Ontario. Dr. Zavitz gave figures showing the production of food per capita in Canada as compared with other countries. In this Canada stands head and shoulders over all countries, which indicates the importance of Canadian agriculture in this time of crises.

Dr. Zavitz conducted the judging class, in which

the system of comparing different samples of grain and methods of judging were fully discussed. There was a large attendance at this class.

In speaking on agriculture for 1918, Dr. Zavitz contended that a stable and progressive agriculture is the basis of the prosperity of a country like Canada, but that in order to obtain the best results under drainage, maintenance of fertility, the use of proper rotations, the best methods of cultivation, the selection of the right classes and varieties of crops, the best time and methods of sowing, must receive attention. Under the present crisis, special attention should be given to the production of those crops which will prove of the greatest service in the immediate future. Owing to scarcity of seed corn, the speaker claimed that the best seed of the most suitable varieties of corn in Ontario should be used largely for the production of seed corn for use in 1919, rather than in the production of corn for silage purposes.

Dr. Zavitz has conducted a number of experiments in the production of green fodder from sowing mixtures of grains. The following table shows the average tons of green fodder for six years with eleven different combinations of peas, oats, barley and wheat.

Crops.	Tons of Green Fodder per Acre.
Peas and Oats	7.93
Peas and Barley	7.20
Peas, Oats and Barley	7.07
Oats and Barley	6.78
Peas, Oats and Wheat	6.73
Peas, Oats, Barley and Wheat	6.56
Oats, Barley and Wheat	6.09
Oats and Wheat	6.09
Peas and Wheat	6.03
Peas, Barley and Wheat	5.88
Barley and Wheat	5.04

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C. A. and also siderable formed t a sample to exa the be prevent sample o having t which w five per o Eighteer saved ea four per of the s seven po be but a speaker vised fe kernels o germinat in Ohio v

Date April 26 May 4-1 May 14- May 25- June 2-5

The planting planted is consid

It will be noticed that peas and oats gave the heaviest yield. This mixture gave the best satisfaction when two bushels of oats and one of peas were sown per acre. It is important that a vigorous-growing oat, with comparatively stiff straw, and peas with long, slender vines, with pods well distributed, such as the Golden Vine or Prussian Blue, be used. The oat fodder is rich in carbohydrates and the peas contain albuminoids. Thus, when mixed together they form a balanced ration, which is more satisfactory for feeding than either oats or peas grown separately. This mixture can be pastured off, cut and cured for hay, or put in a silo. Thus, should seed corn not be available the oat and pea mixture might be substituted for silage purposes.

If growing mixtures for grain purposes, one bushel each of barley and oats, by weight, per acre have given the heaviest yields. The O. A. C. No. 21 barley and an early oat, as Daubeny, O. A. C. No. 3, or Alaska ripen fairly well together. In the past, Ontario has not devoted a very large acreage to spring wheat, but this year owing to the need of wheat a larger acreage might advisedly be sown. The speaker claimed that to be successful in growing spring wheat it is important to have good seed of suitable varieties, such as Marquis or Red Fife, and the seed should be sown early on fall-cultivated land, at the rate of six to seven pecks per acre, according to the quality of soil. Root seed production was also discussed, and the need for a greater production of home-grown seed of mangels, turnips and carrots was pointed out. Mangel seed in particular can be grown fairly satisfactorily throughout most parts of Ontario, and, in order to secure sufficient mangel seed for 1919 seeding, the speaker advised selecting mangels from the root cellars or pits and planting them early in May in well-cultivated ground.

Owing to unfavorable weather conditions, the bean crop last year was a disappointing one. However, Dr. Zavitz believed that owing to the high nutritive value of beans a large acreage should again be planted this year. Not only do beans surpass the cereals commonly used for food in the percentage of protein, which serves to build and repair the body tissues, but they furnish energy as well. They are a concentrated food material which is easily transported and has good keeping qualities. About one-half of the bean crop of North America is produced in the States of Michigan, New York, and the Province of Ontario, but, unfortunately, these two States as well as Ontario experienced bad weather for bean production last year. The securing of seed at an early date, and testing it for germination, was advised. The common pea bean was mentioned as a variety which was in great demand commercially at the present time. Planting should take place early in June and three pecks of seed per acre is a suitable quantity of seed, under average conditions. In order that the food requirements of the country may be met, it may be necessary for Ontario farmers to depart somewhat from the regular system of cropping in 1918.

Soil Improvement.

H. G. Bell, of Chicago, spoke of soil improvement and strongly advised the conservation of moisture by deep fall plowing and charging the soil with humus. The importance of soil bacteria and the conditions favorable to this bacteria were fully explained. It is essential that the soil be free from sourness, that it have good drainage, and plenty of organic matter. On clay soil from two to four tons of ground limestone were advocated. The application of farm-yard manure increases the humus content of the soil and also adds plant food. However, it is generally somewhat deficient in phosphates, and forty to fifty pounds of acid phosphate to each ton of manure was recommended. This could be spread over the top of the load before it left the yard and there would be an even distribution of the phosphate.

Test Your Seed Corn.

C. A. Gearhart, of Wooster, Ohio, judged the corn and also delivered an address in which he threw considerable light on the present corn situation. He informed the Ontario corn growers that they had as good a sample of corn on exhibit as it had been his pleasure to examine in some of the corn-growing districts across the border. Conditions which prevailed in Ontario also prevented the American growers from securing a good sample of seed; for instance, Mr. Gearhart mentioned having taken 1,400 samples in Ohio, eighty per cent. of which was from the crib, and of that amount ninety-five per cent. tested less than forty per cent. germination. Eighteen per cent. of the remaining samples had been saved early and dried in the house; this tested ninety-four per cent. germination. The other two per cent. of the samples were 1916 corn and germinated eighty-seven per cent. According to these figures, there will be but a small supply of high germinating corn. The speaker emphasized the importance of testing and advised feeding anything that does not germinate four kernels out of six, and seeding in proportion to the germination. Results of planting at different dates in Ohio were given as follows:

Date.	Bushels.	Per Cent. Moisture Content of Corn.
April 26-29	61.5	39
May 4-16	64.25	42
May 14-17	65	45
May 25-28	52.64	49
June 2-5	41	57

The above table shows the importance of early planting. While the yield is not quite so high as that planted a little later, the moisture content in the corn is considerably less, and if the yield were figured out in

the percentage of dry matter it would be found that the early planting is an advantage. A dry, warm room is necessary for drying corn. If the moisture is reduced to twenty per cent. or less, corn will stand a zero temperature without the germination being materially damaged. The trouble this year was that the corn contained too much moisture at the time the severe weather set in.

Plant According to the Germination.

P. L. Fancher, Secretary of the Corn Show, discussed the seed corn situation from several viewpoints, and intimated that better care of corn even in normal years was advisable. Weather conditions were such during the past season that the corn did not dry. However, many who took the trouble to pick the ears off the stalks early, and stored them in a warm place to dry, have a fair sample of seed, while those who depended on their corn drying in the stook or on the stalk find that it is very low in vitality; in fact, so low that in many cases it cannot be used for seed. Mr. Fancher advocated saving two years' supply of seed each year. If this had been done in 1916, in all probability there would have been seed enough to go around this spring. It has been found that corn that was mature last fall, but was left in the crib, is not giving a high percentage germination. This is accounted for by the fact that although mature, the kernels contained too much moisture. Methods of testing corn were outlined and the speaker impressed upon his hearers the importance of ascertaining how much of the corn will grow and then planting accordingly.

Corn for Silage.

J. H. Grisdale, of the Experimental Farm, Ottawa, discussed the question of corn for silage and outlined conditions under which good silage was produced. The preparation, planting and cultivating of silo corn is similar to that of seed corn, but care should be taken that it is stored properly. If ensiled when green and watery there is a tendency for it to sour, but, if it is in the right stage of maturity and put in the silo properly, the speaker claimed that it would give palatable, nutritious profitable feed. The advantages of silage mentioned by Mr. Grisdale were that it gives economical cattle feed, gives June pasture conditions in the winter, is economical of land and labor, owing to the fact that more fodder can be produced per acre than of other crops, and more feed can be stored in a given space than of any other roughage.

Prof. J. F. Cox of Lansing, Michigan, spoke on the present seed corn situation and outlined methods of meeting it. The conditions in Michigan evidently are similar to those existing in Ontario, consequently it is believed that a good deal of the corn for silage purposes will have to come from the Southern States where the frost was not so severe and the seed was drier. The saving of the home-grown seed for growing seed corn for next year was advocated. Proper field selection, dry storage houses and drying by artificial heat were mentioned as points to keep in mind in saving seed corn in best condition. F. C. Hart of Toronto discussed the question of Farmers Co-operative Organizations. The beginning, growth and success of co-operative organizations were reviewed and strong reasons were given in favor of them.

The Annual Meeting.

There was a fairly good attendance of members at the annual meeting. L. L. Gregory, the President, was in the chair. The auditor's report showed that receipts had amounted to \$2,393.03, and there was a balance on hand last June when the year closed, of \$85.37. The attendance at the Show this year was considerably greater than last year, consequently the receipts were substantially augmented and the Association is now in a better financial standing than the balance at the end of the year would indicate. The membership last year was 417. The meeting decided to make the second full week in February a permanent date for holding the Ontario Corn Show. The prize list was somewhat criticized, especially the discrimination made in favor of the dent varieties by giving larger and more prizes for the dents than for the flints in some of the County classes. After considerable discussion it was decided that the two classes of corn should be placed on the same footing for classes for East Kent, where a large quantity of flint corn is grown. The standards for the different varieties which were decided upon some time ago were found to be unsatisfactory and the Secretary was appointed convener of a committee to go thoroughly into the matter. The election of officers resulted as follows: Honorary President, R. W. Knister, Cedar Springs; President, L. L. Gregory, Chatham; First Vice-President, W. Anderson, Amherstburg; Second Vice-President, S. McDonald, Port Lambton; Treasurer, J. H. Coatsworth, Kingsville; Secretary, P. L. Fancher, Chatham.

Corn and Grain Exhibit.

The corn exhibit consisted principally of ten-ear and one-ear entries of the different varieties. A. S. Maynard, of Chatham, won the Sweepstakes on the best five ears of flint corn at the Show. A. S. Campbell & Son, of Blenheim, had the best single ear of flint. The sweepstakes for the best ten ears of dent corn was won by B. R. Cohoe, of Woodslee, as was also the single ear of dent. Following is a list of the awards of corn and grain in the general classes: Ten Ears, Bailey: 1, G. W. Coatsworth, Kingsville; 2, Walkerside Dairy, Walkersville; 3, Arthur Mitchell, South Woodslee; 4, James Sines, Kingsville; 5, W. Hedrick, Woodslee; 6, Albert Bruner, Ruthven; 7, Walter Anderson, Amherstburg; 8, Geo. Sellars, North Malden. Ten Ears, Golden Glow: 1, Geo. E. Newman, Cottam; 2, Wm. Mitchell, S. Woodslee; 3, Arthur Mitchell; 4, Walkerside Dairy; 5, Stewart MacDonald, Pt. Lambton; 6, James Ferguson, Fletcher;

7, J. C. Benner, Alvinston. Ten Ears, Leaming, Essex No. 1, Yellow Dent or King of the West: 1, J. H. Coatsworth; 2, Thos. G. Breen, Comber; 3, A. L. Fuliner, Kingsville; 4, John Gould, Essex; 5, W. J. Taylor, Comber; 6, Chas. T. Allyn, Tilbury; 7, Geo. McCormick & Son, Harrow; 8, Jas. Martin, Amherstburg. Ten Ears, Reid's Yellow Dent, Iowa Gold Mine, Mortgage Lifter, Goldsmith: 1, John Gould; 2, John Burns, Cottam. Ten Ears, White Cap Yellow Dent: 1, B. R. Cohoe, Woodslee; 2, Walkerside Dairy; 3, Thomas Destippe, Amherstburg; 4, Frank Weaver, Turnerville; 5, C. R. White, Kingsville; 6, James B. Abra, Corunna; 7, John B. Farrough, Maidstone; 8, Ludger Gagnier, Stoney Point. Ten Ears, Wisconsin No. 7: 1, B. R. Cohoe; 2, Walkerside Dairy; 3, Albert Smith, South Woodslee; 4, Frank Weaver, Turnerville; 5, R. J. Johnson, Chatham; 6, Geo. McCormick, Harrow; 7, O. D. Gagnier, Tilbury; 8, Ralph Langlois, Amherstburg. Ten Ears, Salzer's North Dakota: 1, R. J. Johnson, Chatham; 2, A. S. Maynard, Chatham; 3, A. S. Campbell & Sons, Blenheim; 4, Walter Lane, Pt. Lambton; 5, H. Stenton, Pt. Lambton. Ten Ears, Longfellow: 1, A. S. Maynard; 2, R. J. Johnson; 3, Albert Gilbert, Simcoe; 4, Henry Lampman; 5, Joseph Pfeifer, West Lorne; 6, H. Stenton, Pt. Lambton. Ten Ears, Compton's Early: 1, Frank Smith, Port Burwell; 2, Roy Manley, Staples. Ten Ears Sweet Corn, suitable for canning purposes: 1, Frank A. Smith; 2, F. Nickle, Amherstburg; 3, H. English, Chatham; 4, Chas. T. Allyn, Tilbury; 5, Fred Collins, Chatham. Ten Ears Sweet Corn: 1, A. S. Maynard; 2, Frank A. Smith; 3, B. R. Cohoe; 4, Joseph Pfeifer, West Lorne; 5, Sydney Wyatt, Cottam; 6, H. English; 7, Chas. T. Allyn; 8, Fred Collins. Ten Ears Pop Corn, White: 1, R. J. Johnson; 2, J. B. Abra, Corunna; 3, A. S. Maynard; 4, Sydney Wyatt; 5, J. E. Hambly, Cedar Springs; 6, H. Stenton. Ten Ears Pop Corn, Red: 1, R. J. Johnson; 2, Sydney Wyatt; 3, J. E. Hambly. Single Ear, Yellow Dent Corn: 1, James Pierce; 2, James Martin; 3, A. L. Fuliner; 4, W. A. Barnet; 5, O. D. Gagnier; 6, Geo. McCormick; 7, John Gould. Single Ear, White Cap Yellow Dent: 1, B. H. Cohoe; 2, C. R. White; 3, E. C. James, Merlin; 4, Geo. Bowman, Cottam; 5, Wm. Nussey, Stoney Point; 6, Douglas Holmes, Tilbury; 7, James Abra, Corunna. Single Ear Wisconsin No. 7: 1, B. R. Cohoe; 2, R. H. Gagnier; 3, F. Nickle; 4, Albert Smith; 5, Frank A. Smith; 6, O. D. Gagnier; 7, James Martin. Single Ear, Salzer's Flint Corn: 1, A. S. Campbell & Sons; 2, A. S. Maynard; 3, R. J. Johnson; 4, Wm. Robertson; 5, H. Stenton; 6, Walter Lane. Single Ear Longfellow Flint Corn: 1, Frank A. Smith; 2, A. S. Maynard; 3, R. J. Johnson; 4, H. English; 5, H. Stenton; 6, H. Lampman; 7, Albert Gilbert. Single Ear Compton's Early Flint Corn: 1, Frank A. Smith; 2, R. J. Johnson; 3, Roy Manley.

Small Grains.

Spring Wheat: 1, Frank Smith; 2, E. C. Jones; 3, Will Barrie; 4, A. M. Mortimer; 5, J. A. Fletcher; 6, Henry Wall. Fall Wheat: 1, E. C. Jones; 2, Frank A. Smith; 3, Jas. B. Abra; 4, James Martin; 5, Hugh McCutcheon; 6, Sydney Wyatt; 7, J. Trothen. Six-rowed Barley: 1, B. R. Cohoe; 2, R. J. Wilson; 3, R. J. Johnson; 4, E. C. Jones; 5, H. Stenton; 6, Jas. B. Abra; 7, Will C. Barrie. White Oats: 1, R. M. Mortimer; 2, B. R. Cohoe; 3, Frank A. Smith; 4, Albert Gilbert; 5, R. W. Knister; 6, R. J. Wilson; 7, A. S. Maynard. Rye: 1, Fred I. Ure; 2, Leo Murphy. Buckwheat: 1, Frank A. Smith; 2, Ralph Langlois. Field Peas: 1, Frank A. Smith; 2, Wm. McCutcheon. Beans, Small, White: 1, Albert Gilbert; 2, J. Trothen; 3, H. Stenton; 4, R. J. Johnson; 5, A. S. Maynard; 6, Joseph Pfeifer. Beans, Medium: 1, Mac Maynard; 2, A. S. Maynard; 3, Hugh McCutcheon. Beans, Yellow Eye: 1, J. Trothen; 2, J. Jenks; 3, Peter Clark. Alsike: 1, Frank A. Smith; 2, Alfred Smith; 3, H. Stenton. Red Clover: 1, Jas. Martin; 2, B. R. Cohoe; 3, W. A. McCutcheon; 4, Alfred Smith; 5, J. Jenks; 6, Henry Walls. Alfalfa: 1, Wm. A. McCutcheon. Timothy: 1, B. R. Cohoe; 2, Frank A. Smith; 3, E. C. Jones; 4, Ralph Langlois; 5, Sydney Wyatt; 6, Chas. Warnock. Millet: 1, Alfred Smith, Woodslee. Flax: 1, B. R. Cohoe, South Woodslee. Potatoes: 1, A. S. Maynard; 2, R. J. Johnson.

Ontario Plowmen Hold Annual Meeting.

The annual meeting of the Ontario Plowmen's Association was held in Toronto, on Monday, February 11. The chief business transacted was determining the dates and place for the next Provincial match. It was finally decided to hold the next match, at Ottawa on October 16-17-18, 1918. The event is scheduled as the Provincial Plowing Match and Farm Machinery Demonstration. It will be held partly on the Central Experimental Farm and the J. R. Booth Farm. A resolution was carried asking the Government for a grant of \$2,000. out of the federal appropriation. This, if obtained, would be used for educational purposes only and not for prizes. It was suggested that a portion of it could be utilized in helping to pay transportation charges on teams and equipment of those coming to the match from beyond a 25-mile radius with the match as a centre. The officers for the following year are: President, W. C. Barrie, Galt; Vice-President, W. H. Garbutt, Peterborough; Secretary and Managing Director, J. Lockie Wilson, Parliament Buildings, Toronto; Treasurer T. A. Patterson, Agincourt.

If you had been selecting, weeding out cull cows, and using the best bull available for the past ten years how much more would you have been worth to-day?

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending February 14.

Receipts and Market Tops.

Dominion Department of Agriculture, Live Stock Branch, Markets Intelligence Division

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7
Toronto (Union Stock Yards)	2,834	4,294	4,111	\$11.75	\$11.00	\$11.75	582	546	411	\$17.00	\$14.75	\$17.00
Montreal (Pt. St. Charles)	402	565	396	11.25	11.00	11.25	257	158	132	16.00	12.00	16.00
Montreal (East End)	397	712	848	11.25	11.00	11.25	163	220	203	16.00	12.00	16.00
Winnipeg	1,721	2,088	1,722	12.00	9.90	12.00	41	127	56	12.50	10.00	12.00
Calgary	1,619	999	1,460	11.00	8.75							

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs.			
	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7	Week Ending Feb. 14	Same Week 1917	Week Ending Feb. 7
Toronto (Union Stock Yards)	7,332	9,290	7,109	\$19.00	\$14.50	\$19.00	848	742	774	\$19.00	\$15.00	\$17.00
Montreal (Pt. St. Charles)	603	873	413	19.75	15.75	19.50	112	58	215	17.00	14.25	17.00
Montreal (East End)	670	921	742	19.75	15.75	19.50	34	146	195	17.00	14.25	17.00
Winnipeg	6,417	8,133	5,092	18.75	13.65	18.25	19	13	22	16.50		16.00
Calgary	3,150	6,989	2,851	19.00	13.25	18.75	109	343	8		11.50	

Market Comments.

Toronto (Union Stock Yards).

Following the order of the Fuel Controller restricting the use of coal over the week end, the railways refused to accept live stock for shipment on Saturday, with the result that only those that were shipped on the previous day were available for the Monday market. These totalled only seven hundred head of cattle and seventeen hundred hogs, while on Tuesday less than one hundred cattle were available for the market. By Wednesday, however, live stock was again moving freely, with about fourteen hundred cattle and three thousand hogs on Thursday. Providing that Toronto is not again visited by severe storms, such as have prevailed during the past six weeks it is to be expected that receipts will assume normal proportions and that a good demand will exist for all supplies next week. Prices on Monday showed considerable improvement over those prevailing the previous week, as with a limited number available, there was an advance of twenty-five cents per hundred in what proved a short and snappy market. On Wednesday a further advance was noted during the early hours of trading, but as belated shipments continued to arrive, buyers assumed a more independent attitude and toward the close of the day the advance of the morning was about killed. The market closed on Thursday about steady at Monday's quotations. Only a few heavy cattle were received during the week; and four animals of top quality included in these brought \$12.50 per hundred on Wednesday, while other sales were made at \$11 to \$12 per hundred. Butcher cattle of one thousand to twelve hundred pounds were selling as high as \$11.50 on Monday and reached a top price of \$11.65 on Wednesday, ten head of ten hundred and sixty pounds bringing the latter price, while sixteen head of one thousand pounds sold at \$11.70, sixteen of eleven hundred and eighty pounds at \$11.50, twenty-five of ten hundred and seventy pounds at \$11.65; other good sales ranged from \$11 to \$11.50, and the majority of this class sold from \$10.50 to \$11.25. In butcher cattle under one thousand pounds, a few choice baby beef realized fancy prices, seven head being sold on Monday at \$14.25 and three others of seven hundred pounds on Wednesday at \$13.50. Other good sales were made as high as \$11.50, sixteen head averaging nine hundred pounds reaching that level with other choice killers realizing \$11. The bulk of the best cattle in this grade moved at \$10.25 to \$11 with medium at \$9 to \$9.75 and common at \$8 to \$9. Cows and bulls were in active demand at the general advance. A few of each class sold up to \$11 per hundred, but sales at that figure were the exception rather than the rule. A few sold at \$10.50 while most of the sales were made between \$9 and \$10 per hundred. Bologna bulls and medium cows sold from \$7 to \$8.25, and canners and cutters from \$6 to \$6.50. A few stockers and feeders went back to country points for further feeding at quotations steady with those of last week. The supply of these is at present limited although three or four heads of western cattle were on sale this week. Veal calves were in active demand at prices

CLASSIFICATION	No.	TORONTO (Union Stock Yards)			MONTREAL (Pt. St. Charles)			
		Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price
STEERS heavy finished	24	\$11.75	\$11.00-\$12.00	\$12.50				
STEERS good	152	11.09	10.50-11.50	11.75	12	\$11.25	\$11.25	\$11.25
STEERS 1,000-1,200 common	4	10.25	10.25-	10.50	4			
STEERS good	636	10.75	10.25-11.25	11.50	12	10.90	10.75-\$11.00	11.25
STEERS 700-1,000 common	166	9.36	8.75-9.75	9.75	61	9.75	9.00-10.00	10.00
HEIFERS good	198	11.00	10.50-11.50	11.75	8	10.75	10.50-11.25	11.25
HEIFERS fair	250	9.50	9.00-9.75	9.75	18	9.35	8.50-10.00	10.00
HEIFERS common	8	8.53	8.00-9.00	9.00	28	8.25	7.00-8.50	8.50
COWS good	145	9.69	9.00-10.00	10.50	6	9.80		11.25
COWS common	343	7.75	7.50-8.25	8.50	87	8.85	8.50-9.50	9.50
BULLS good	65	9.77	9.00-10.25	10.50	3	11.15	11.00-11.25	11.25
BULLS common	18	8.15	7.75-8.50	9.75	26	8.00	7.50-8.75	10.00
CANNERS & CUTTERS	224	6.19	5.75-6.50	6.50	71	6.10	5.50-6.75	6.75
OXEN					19	8.50	8.00-9.00	9.00
CALVES veal	553	15.52	14.00-17.00	17.00	237	15.00	14.00-16.00	16.00
CALVES grass	29	7.91	7.00-9.00	9.00	20	7.00	6.00-8.00	8.00
STOCKERS good	134	8.54	8.00-9.00	9.00				
STOCKERS 450-8,000 fair	114	7.75	7.50-8.00	8.00				
FEEDERS good	298	10.00	9.50-10.50	10.50				
FEEDERS 800-1,000 fair	55	9.14	8.75-9.50	9.50				
HOGS selects	6,989	18.73	18.50-19.00	19.00	539	19.75	19.75-	19.75
HOGS (fed and watered) heavies					57	19.00	18.75-19.25	19.25
HOGS lights	204	17.52	16.75-18.00	18.75	7	17.35	17.25-17.50	17.50
HOGS sows	133	17.93	16.75-18.75	18.75				
HOGS stags	6	14.92	14.75-15.00	15.00				
LAMBS good	571	18.50	18.00-18.75	19.00	10	16.15	16.00-17.00	17.00
LAMBS common	137	16.00	15.00-17.00	17.00	40	15.40	15.00-16.00	16.00
SHEEP heavy	51	12.07	11.00-13.00	13.00	57	12.15	12.00-12.50	13.00
SHEEP light	72	13.54	12.00-15.00	15.00	5	10.00	10.00-12.00	12.00
SHEEP common	17	8.00	7.00-10.00	10.00				

ranging from \$16 to \$17 for those of choice quality and \$13 to \$15 for common. Lambs were selling at steady quotations choice lambs bringing \$18.75 and the majority of the good from \$18 to \$18.50, while common sold from \$15 to \$17. Sheep were in steady demand at \$11 to \$14.50. There was but little change in hog quotations: on Monday and Tuesday select hogs sold at \$19 per hundred fed and watered. On Wednesday the buyers endeavored to reduce prices to \$18.50. In this way were only partly successful, most of the sales being made at \$18.75. The market closed steady at this level on Thursday. If liberal supplies are available next week it is probable that a further reduction may occur. Of the disposition from the Yards for the week ending February 7th, Canadian packing houses bought 243 calves, 85 bulls, 3,412 butcher cattle, 8,294 hogs, and 603 sheep and lambs. Local butchers purchased 160 calves, 160 butcher cattle, 130 hogs and 109 sheep and lambs. Canadian shipments were made up of 6 calves, 60 milch cows, 68 butcher cattle, 225 stockers, 133 feeders, 317 hogs and 23 sheep and lambs. The total receipts from January 1st to February 7th, inclusive, were: 24,498 cattle, 2,318 calves, 43,183 hogs, and 7,086 sheep; compared to 28,742 cattle,

3,811 calves, 5,504 hogs and 7,728 sheep, received during the corresponding period of 1917. **Montreal.** Cattle receipts continue to decrease in volume, the numbers on hand during the week totalling only seven hundred and ninety-nine, compared to fourteen hundred and fifty the previous week and eighteen hundred and fifty received two weeks ago. A contributing factor to the small number of cattle was the refusal of the railroad companies to accept live stock for shipment after Saturday noon until the following Tuesday on account of the fuel restrictions. The market opened on Monday with a combined total of less than five hundred cattle on the two yards, eighty-five head of which were cattle held over from the previous week in the expectation of higher prices. The market opened slow on Monday but later in the day a brisk trade developed and practically all offerings were cleaned up at prices slightly advanced from those prevailing at the close of the previous week. No further receipts were on hand until Wednesday on which day about three hundred cattle were on sale. During the week prices were noticeably strong for fairly fat cows, while the best offerings in bulls, steers, and cows, sold at a top of \$11.25 per hundred. One load of fairly well finished

steers averaging nine hundred and fifteen pounds sold at \$10.75 per hundred, another load of a similar average weight but containing one bull and a number of fair quality cows, at \$10, while a load of mixed cattle consisting largely of fair quality heifers which were sold at \$10.25 on the closing market of last week, were resold at an advance of 25 cents per hundred. Receipts of canners and cutters were light in numbers with the general quality of the offerings not quite as high as last week; as a consequence, while the range of prices was unchanged the average price was from 15 to 25 cents lower. Nineteen oxen were sold on the Pt. St. Charles' yards during the week, seventeen of the number realized \$8.50 per hundred; these had an average weight of seventeen hundred pounds. Calves were offered in liberal numbers being considerably more than those of the previous week. The price range was practically unchanged but on account of the improved quality, the average price of the run was higher than that of the previous week. Receipts of sheep and lambs were light and those offered consisted largely of bucks. Hardly enough were on hand to make a market and prices were unchanged from those prevailing at the close of the preceding week's market. Hogs were also light in numbers although slightly more than those of the

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Incorporated 1855

At any of the Branches of

The Molsons Bank

Farmers are welcome

Local Managers are instructed to consult with them, and by every legitimate means assist in securing the utmost development of our farms.

Savings Department at all Branches, Interest at Highest Current Rate.

previous week. Demand continued brisk and all offerings were quickly bought up at the prices quoted at the close of the previous week's market selects selling at \$19.75, per hundred fed and watered, and other grades in proportion. The majority now coming forward are being bought on contract.

PT. ST. CHARLES.—Of the disposition from the Yards for the week ending February 7th, Canadian packing houses and local butchers purchased 132 calves, 59 canners and cutters, 53 bulls, 454 butcher cattle, 416 hogs, and 215 sheep and lambs. Canadian shipments were made up of 32 milch cows. There were no shipments made to United States' points during the week.

The total receipts from January 1st to February 7th, inclusive, were: 15,744 cattle, 992 calves, 6,306 hogs, and 4,595 sheep; compared to 14,644 cattle, 1,638 calves, 7,978 hogs, and 4,191 sheep; received during the corresponding period of 1917.

EAST END.—Of the disposition from the Yards for the week ending February 7th, Canadian packing houses and local butchers bought 203 calves, 843 butcher cattle, 742 hogs and 195 sheep and lambs. There were no shipments made to United States' points during the week.

The total receipts from January 1st to February 7th, inclusive, were: 4,696 cattle, 997 calves, 4,448 hogs, 4,345 sheep; compared to 6,208 cattle and 1,581 calves, 6,626 hogs, and 5,267 sheep; received during the corresponding period of 1917.

Winnipeg.

During the week, eight light steers averaging twelve hundred and forty pounds made the top price of \$12 per hundred, while twelve head averaging thirteen hundred and sixty pounds sold at \$11.65, numerous sales were made around \$11, the range of the best heavy steers being from \$10 to \$11.50, and for those of medium quality from \$8.50 to \$9.50. Of the lighter weights of butcher cattle four head averaging nine hundred and forty pounds sold at \$11.75 while the majority of those of good quality sold from \$9 to \$10, and medium from \$7.25 to \$8.50. Female classes sold at steady prices under a fair demand. Two heifers weighing slightly better than thirteen hundred pounds each, sold at \$11 per hundred, while most of the heifers sold from \$9 to \$10. Two extra choice cows brought \$11, a few sold at \$9, and the majority of these of good quality around \$8, while those of medium grading sold from \$6 to \$7.50.

Only nineteen sheep and lambs were received during the week; lambs were quoted from \$15 to \$16.50 and sheep around \$15.

Receipts of hogs showed an increase over the previous week of fourteen hundred and twenty while only five hundred were on through billing. These were scarcely enough for the demand. Prices were considered too high for shipment to the East. The market held steady until Thursday at \$18.25 per hundred, fed and watered, for selects, on which day heavy receipts caused renewed activity and the market advanced fifty cents per hundred, placing Winnipeg and Toronto prices on the same level. The quality of the run was only fair. With liberal runs on hand lower markets may develop.

Of the disposition from the Yards for the week ending February 7th, Canadian packing houses bought 4 calves, 827 butcher cattle, and 4,582 hogs. Local

butchers purchased 43 calves, 410 butcher cattle, 306 hogs, and 20 sheep and lambs. Canadian shipments were made up of 2 calves, 1 bull, 99 butcher cattle, 293 stockers, and 96 hogs. United States shipments consisted of 23 butcher cattle. The total receipts from January 1st to February 7th, inclusive, were: 70,926 cattle, 337 calves, 40,132 hogs, and 370 sheep, compared to 11,064 cattle, 503 calves, 46,849 hogs, and 222 sheep, received during the corresponding period of 1917.

Buffalo.

Cattle.—Cattle values were off from a quarter to half a dollar on steers last week, with a fairish to good kind of females, both heifers and cows, selling from 15 to 25 cents under the previous week's level. Medium and common mixed butchering stuff and bulls bringing about steady prices. Milk cows and springers of the better grades sold at unchanged prices. Best steers offered ranged from \$13 to \$13.60; a fair and medium kind running from \$11.75 to \$12.50; Canadians, which were only fairish kinds, ranging from \$11.10 to \$11.40. Best in the handy butchering steer line showed a range of from \$11 to \$11.50, with best heifers from around \$10 to \$10.50. Extra fancy fat cows sold up to \$10.50, but bulk of good butchering grades ran from \$8 to \$8.50. From \$10.50 to \$11 was paid for fancy bulls. In the milk cow and springer line, from \$120 to \$125 took the best offered. With the Lenten season on, demand for beef is below normal, and the trade ruled slow all week. Offerings for the week reached 3,475 head, as against 4,550 for the previous week, and 3,075 head for the corresponding week a year ago. Quotations:

Shipping Steers.—Natives, choice to prime, \$13 to \$13.60; fair to good, \$12.25 to \$12.75; plain, \$10.75 to \$11.75; very coarse and common, \$10 to \$10.50.

Shipping Steers.—Canadians, best, \$11.25 to \$11.50; fair to good, \$10.75 to \$11; common and plain, \$9.50 to \$10.

Butchering Steers.—Choice heavy, \$12 to \$12.50; fair to good, \$11.50 to \$12; best handy, \$11.50 to \$12; fair to good, \$10 to \$11; light and common, \$9 to \$9.75; yearlings, choice to prime, \$12.50 to \$13; fair to good, \$11.75 to \$12.

Cows and Heifers.—Best heavy heifers, \$10.75 to \$11.25; good butchering heifers, \$10.25 to \$10.50; fair butchering heifers, \$9 to \$9.75; common, \$7 to \$8; very fancy fat cows, \$10 to \$10.50; best heavy fat cows, \$9.50 to \$9.75; good butchering cows, \$8.50 to \$9; medium to fair, \$7 to \$7.50; cutters, \$6 to \$6.75; canners, \$4.50 to \$5.75.

Bulls.—Best heavy, \$10 to \$11.50; good butchering, \$9 to \$9.50.

Stockers and Feeders.—Best feeders, \$8.50 to \$9; common to fair, \$7.25 to \$8; best stockers, \$7.50 to \$8; fair to good, \$6 to \$7; common, \$5 to \$5.75.

Milchers and Springers.—Good to best, small lots, \$90 to \$120; in carloads, \$80 to \$100.

Hogs.—Prices at Buffalo last week held up better than generally expected. Monday a few mediums and heavies brought \$17.05 and \$17.10, with two decks \$17.15, but the general price for better weight grades was \$17, and pigs landed mostly at \$16. Tuesday's range on best hogs was from \$16.90 to \$17, with pigs selling from \$15.60 to \$16; Wednesday's trade was about steady with Tuesday; Thursday York weight grades sold up to \$17.20, heavies ranged on down to \$17 and \$17.10, and pigs brought from \$15.50 to \$15.75. Friday light hogs sold from \$17.25 to \$17.35, heavies ranged from \$17 to \$17.10, and pigs went from \$15.75 down. Roughs brought from \$15.25 to \$15.50, and stags mostly \$13.50 to \$14. For the past week receipts were 22,700 head, as against 27,395 head for the week before, and 30,000 head for the same week a year ago.

Sheep and Lambs.—Prices last week, as a result of increased receipts, were on the decline. Monday top lambs sold at \$18.50; Tuesday none brought above \$18.25; Wednesday's range was from \$18 to \$18.25; Thursday's top was \$18, and Friday buyers got the most desirable lambs down to \$17.50 and \$17.75. Lambs weighing around 90 and 95 pounds undersold the most desirable kinds by from 25 to 50 cents, and the extreme heavy kinds landed in about the same notch as the good culls, which sold around \$15.50 per cwt., under the tops. Yearlings, in sympathy with lambs, were lower as the week advanced, Friday's range on these

being from \$15.25 down. Sheep were scarce and not much change was noted in the trade on these. Wethers are quotable around \$14, and ewes from \$13 down. Receipts for the week totaled 17,200 head, as compared with 10,185 head for the previous week, and 16,500 head for the same week a year ago.

Calves.—The first four days of the week showed top veals selling from \$16.25 to \$16.50, and Friday, under a keen demand, prices were jumped fifty cents, bulk going at \$17. Cull grades were slow all week, ranging mostly from \$13 down, and fed calves sold from \$6 to \$8. Offerings last week aggregated 3,000 head, being against 2,361 head for the week before, and 2,200 head for the same week a year ago.

Toronto Produce.

Receipts of live stock at Union Stock Yards, West Toronto, Monday, Feb. 18, were 127 cars, 1,795 cattle, 227 calves, 2,384 hogs, 105 sheep and lambs. Active market; butcher steers, heifers, cows, bulls twenty-five to forty cents higher; stockers, feeders, milkers and springers steady; lambs and calves twenty-five cents higher; sheep, steady; hogs, \$19, fed and watered.

Breadstuffs.

Wheat.—Ontario (basis in store Montreal) No. 2 winter, per car lot, \$2.22. Manitoba wheat (in store, Fort William, including 2½c. tax)—No. 1 northern, \$2.23½; No. 2 northern, \$2.20½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.10½.

Oats.—Manitoba (in store, Fort William)—No. 2 C.W., 88½c.; No. 3 C.W., 85½c.; extra No. 1 feed, 85c.; No. 1 feed, 81½c.

Oats.—Ontario, No. 2 white, 93c. to 94c.; No. 3 white, 92c. to 93c.

Peas (according to freights outside)—No. 2, \$3.70 to \$3.80.

Barley (according to freights outside)—malting, \$1.59 to \$1.61.

Buckwheat (according to freights outside)—\$1.63 to \$1.65.

Rye (according to freights outside)—No. 2, \$1.83 to \$1.85.

American corn (track, Toronto)—No. 3 yellow, kiln-dried, \$1.90.

Flour.—Ontario (in bags, prompt shipment)—War quality, \$10.60. Manitoba flour (Toronto)—War quality, \$11.10.

Hay and Millfeed.

Hay.—No. 1, per ton, car lots, \$16 to \$17; mixed, \$13 to \$16.

Straw.—Car lots, per ton, \$8.50 to \$9.

Bran.—Per ton, \$35; shorts, per ton, \$40; middlings, per ton, \$45 to \$46; good feed flour, per bag, \$3.40.

Country Produce.

Butter.—Butter of all classes kept stationary in price on the wholesales during the past week, selling as follows: Creamery, fresh-made pound squares, 50c. to 51c. per lb.; creamery solids, 47c. to 48c. per lb.; dairy, 35c. to 40c. per lb. Oleomargarine, 30c. to 32c. per lb.

Eggs.—Cold storage eggs again advanced slightly, wholesale, new-laid remaining stationary. Cold storage No. 1's, 51c. per dozen; selects, 54c. per dozen; new-laid, 60c. to 65c. per dozen.

Cheese.—Old, 30c. per lb.; new, 24c. per lb.; new twins, 24½c. per lb.

Honey.—There is very little honey on the market, which brings the following prices: Strained, 22c. per lb.; comb, \$3.20 to \$3.75 per dozen.

Poultry.—Poultry of all classes was again only shipped in very lightly during the week, bringing the following high prices for live-weight variety: Chickens, milk-fed, 25c. per lb.; chickens, ordinary fed, 23c. per lb.; fowl, 3½ lbs. and under, 20c. per lb.; fowl, 3½ lbs. to 5 lbs., 24c. per lb.; fowl, 5 lbs. and over, 27c. per lb.; ducklings, 25c. per lb.; geese, 18c. per lb.; turkeys, young, 25c. per lb.; turkeys, old, 22c. per lb.

Hides and Wool.

Prices delivered, Toronto:
City Hides.—City butcher hides, green flat, 20c.; calf skins, green flat, 23c.; veal kip, 20c.; horse hides, city take off, \$5 to \$6; city lamb skins, shearing and pelts, \$1.50 to \$2.25; sheep, \$2.50 to \$4.

Country Markets.—Beef hides, flat, cured, 18c. to 19c.; deacon or bob calf, \$1.50 to \$1.75; horse hides, country take off, No. 1, \$5.50 to \$6; No. 2, \$5 to \$6; No. 1, sheep skins, \$2.50 to \$3.50. Horse hair, farmers' stock, \$25.

Tallow.—City rendered, solids, in barrels, 13c. to 14c.; country solid, in barrels,

No. 1, 12c. to 16c.; cakes, No. 1, 14c. to 16c.

Wool.—Unwashed fleece wool, as to quality, fine, 60c.; coarse, 58c. Washed wool, fine, 70c.; coarse, 65c.

Wholesale Fruits and Vegetables.

Carrots and onions are being featured by the wholesale merchants, as there is grave danger of large quantities of them going to waste, which would be a shame, to say the least when there is such a shortage of foodstuffs. The carrots are being offered at 50c. to 60c. per bag, out of store, and also at \$13.50 per ton delivered to any station within 75 miles of Toronto.

Potatoes arrived more freely, N. B. Delawares selling at \$2.50 per bag, Ontario and Easterns at \$2.40 to \$2.50 per bag.

Montreal Produce.

Horses.—Some additional demand for horses was noticeable owing to storms and bad roads, and dealers report that some animals changed hands last week. Prices were unchanged; heavy draft, weighing 1,500 to 1,700 lbs., \$225 to \$275 each; light draft, weighing 1,400 to 1,500 lbs., \$275 to \$225 each; small horses, \$150 to \$200 each; culls, \$75 to \$125 each; choice saddle and carriage horses, \$200 to \$250 each.

Poultry.—There was a moderate demand for poultry in as much as prices were invariably cheaper than for meats. Turkeys were purchased at 35c. to 36c. per lb., and choice chickens at practically the same figure. Other qualities ranged around 31c. to 32c. per lb. Fowl sold at 26c. to 29c., ducks around the same range, and geese at 26c. to 28c. per lb.

Dressed Hogs.—There was a firm market for dressed hogs, and demand was quite active. Prices ranged from 27½c. to 28c. per lb. for abattoir dressed, and around 2 cents less for country dressed.

Potatoes.—Receipts of potatoes were held up on account of the severe weather conditions, but prices remained steady at \$2.15 to \$2.25 for Green Mountains in a wholesale way, with Ontario whites at \$2 to \$2.10, and red at \$1.90 to \$2 per bag of 80 lbs., ex-store.

Honey and Maple Syrup.—A very firm tone continued in the market for honey, No. 1 white clover comb selling at 21c. 22c. and No. 2 at 19c. to 20c. Brown comb sold at 19c., and white extracted at 18c. to 20c. Supplies of syrup were practically nil, and quotations on 13-lb. tins were as high as \$2.

Eggs.—The situation in the egg market was unchanged, but light supplies make prices firm. A larger consumption is expected during the Lenten season. Fall fresh stock sold at 58c. to 60c.; storage selects at 52c. to 54c.; No. 1 stock at 50c. to 52c., and No. 2 storage 45c. to 47c. per dozen.

Butter.—Receipts of butter showed an increasing tendency as compared with the previous week, and prices were fully maintained at the recent advance. Finest September and October creamery sold at 49½c. to 50c. per lb., while fine sold at 48½c. to 49c. Current receipts were 47c. to 47½c., and dairies 42½c. to 43c. for finest, and 41½c. to 42c. for fine.

Cheese.—Prices were unchanged at 21½c. for No. 1, 21¼c. for No. 2, and 20½c. for No. 3.

Grain.—The market for oats was strong, No. 3 Canadian Western and extra No. 1 feed being quoted at \$1.03 per bushel, ex-store. No. 1 feed at \$1.01; No. 2 feed, 98c.; Ontario No. 2 white oats were \$1.02; No. 3 being \$1.01, and No. 4, \$1, ex-store.

Flour.—Dealers claim that there is little winter wheat flour to be had. The new standard grade is quoted at \$11.10 per barrel in bags, in car lots f. o. b. track, Montreal for country account, and \$11.20 delivered to city bakers. Sales of winter wheat flour were made at \$10.70 per barrel in bags, f. o. b. Montreal, while blended flour was \$10.90. There was some demand for rye flour at \$5.50 per bag, and corn flour at \$6.50 per bag.

Millfeed.—The market was steady, bran selling at \$35 per ton; shorts, \$40; middlings, \$48 to \$50; mixed mouille, \$58 to \$60; pure grain mouille, \$64 to \$65, including bags.

Baled Hay.—Receipts of baled hay were light. Prices were firm, No. 2 hay being quoted at \$15.50 to \$16; No. 3 at \$14.50 to \$15, and clover mixed at \$10 to \$12 per ton, ex-track.

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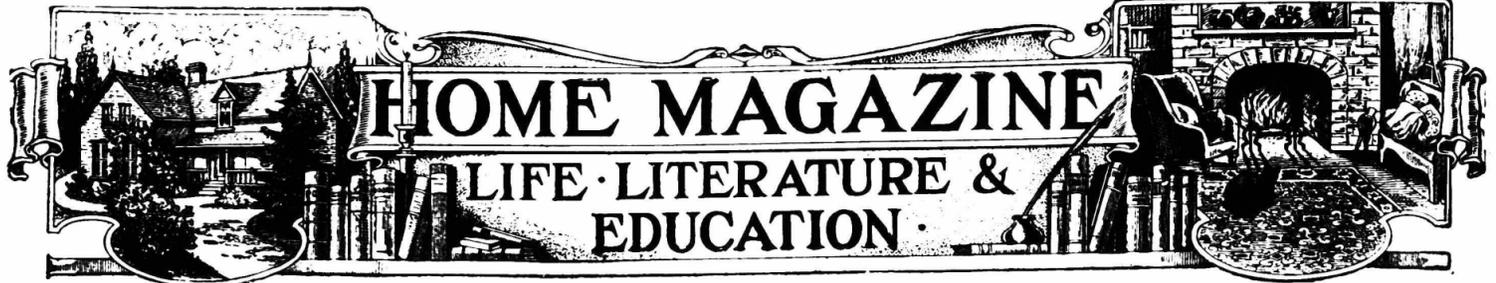
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To the Babe.

I wish you joy of this and that;
The new look from a path's quick turn,
The sun-hine in the long home street,
The unexpected fern.

I wish you power to draw delight
Because a bough blows so—or so;
To love to walk within the wind
Or in the thick, slow snow.

I wish you joy of everything—
Of all the living, singing lands
And of the smiling, sleeping sky
That no one understands.

Take these Dear Babe, and then I pray
A magic for you—here's a part:
The bliss-fulness of being near
The wild, glad, aching human heart.
—ZONA GALE.

Our Most Valuable Crop.

TO-DAY the most valuable crop in the world is the children. Anyone who thinks seriously about the subject for five minutes must see that. For it is a plain fact which cannot be evaded that in the immediate future the world will be short of men. It will be short of men in actual numbers, while a considerable proportion of those who can still be numbered will be far from physically fit. Cannon and rifle, poison gas and the deep sea have taken millions of the very cream of the nations—for war will have only the best, physically; millions more will never be able to do a solid day's work again—tuberculosis and maimed bodies and wrecked nerves cannot meet the harder tests of the workaday world; and so there will be work to do and few to do it, and the call will come, more and more insistently, for the young men of to-morrow—who are the boys of to-day—to come with sound bodies, clear brain and high ideals, to the task of putting the world together again.

FOR most things on this old earth will have to be reconstructed. The work of destruction that has gone on for nearly four years has put things sadly out of gear. Towns will have to be rebuilt over there in Europe, and ruined countryside put again in the way of growing crops; everywhere commercial relations will have to be readjusted and new laws created, both national and international; most certainly the whole world will have to be made a better and more stable place than ever before for human beings to live in else the blood which has soaked the soil of France and Flanders, Italy, Serbia, Roumania and Russia, will have been shed in vain. Everywhere democracy must take the place of autocracy and take it permanently; but then, as someone has cleverly said, "The world must not only be made safe for democracy; democracy must be made safe for the world."

And the young men and women who will have to do all these things will have to do them while carrying an unprecedented burden, the cost of a war which they had nothing to do. When the Paris Peace Conference was held, the nations and individuals were called upon to do things that were beyond their power to do. The world is now in a state of transition, and the young men and women of to-day must be prepared to take up the burden of a world that is not only physically but also morally and spiritually in a state of transition.

servation" called to mind instantly the thought of our natural resources—conservation of our forests, fertility of the soil, fish, animal life and so on. Today it suggests very concrete things—the bread on our tables, the meat supply, the fuel we burn. But there comes creeping in also a new conception, which calls ever more loudly for attention—"Conservation of Life." For eyes, at last human life has become precious—although away out there at the fighting front it seems as though it were not worth ten cents. Strange, is it not? that the cheapness of it in one place should make it of such inestimable worth in another.

—Conservation of life for work's sake, and conservation of life, for life's sake too. We are beginning to see very clearly these days, and perhaps the sympathy called forth for those who are suffering in and because of the war, is setting sympathy alight in other ways as well. We are beginning to see that many things count for more than personal property—incalculably more. We are beginning to see that we cannot live to ourselves alone because if we do we lose more than we can ever gain, but that our great task in life must be, somehow, to try to make things better than they are for other people as well as ourselves.

"But", says someone, "I am looking after the welfare of my own children. That is enough for me." It is the cry of Cain in the wonderful old story, "Am I my brother's keeper?" If everyone in the world were to decide just that, what would become of the other people's children who, because of accident or long misfortune, have to face life without even half a chance?

OF late, it seems, people are realizing more than ever before this great truth, that no one can trade

live into himself or herself that the call of the suffering world cannot be gainsaid. And, too, the hearts of people are kind, as a rule, provided only one can open their eyes to see. The war is doing that. And so we find folk talking much of late in an altruistic way, holding meetings, publishing appeals and starting a foundation for many things, such as: segregating the feeble-minded; combating venereal disease; establishing medical and dental inspection of schools; appointment of public health officers; the securing of educational lectures and pictures; school gardens and scientific agricultural instruction for rural communities; consolidated schools; better methods of marketing and bringing producers of foodstuffs closer to the urban consumers of them; in short all the measures which tend to raise the standard of life for all the people, to make them healthier, happier, more capable, more fit for the best kind of living than ever before.

VERY much in the forefront is the actual work that is being done in regard to Child Welfare. In Women's Institute meetings The Care of Children occupies a prominent place in discussions; Teachers' Conventions deal almost wholly with the betterment of the child; there are periodicals devoted wholly to the subject, and books dealing with every phase of it.

And notably helpful, in Ontario, is the "Child Welfare Exhibit", which has been prepared by the Provincial Health Department, and which, for some time, has been going the rounds of Ontario towns and cities. If it has not been to you, take steps to see that it comes. Below will be found information which will tell you just how the matter was accomplished in one place in Ontario,

and how much it means to every community in which it is featured.

How a Child Welfare Demonstration is Conducted.

YESTERDAY afternoon—the "opening day," February 11th, we dropped in to have a peep at the "Child Welfare" Demonstration, which has been heralded in the London papers for some weeks past.

No trouble to find where it was!—from half a block away the wailing of infants innumerable was to be heard. And so we turned in at the front door of the Y. M. C. A. and found our way to the second floor up, passing en route a number of young men, evidently habitués of the place, who tried to look serene and unconcerned, as though the squalling of half a score of babies within that building sacred to masculinity was an everyday occurrence.

Upstairs we made for the room of squalls, instantaneously and there found a sight which, to us at least, discredited the old biblical sage's saying, "There is nothing new under the sun."

Surely this was something new under the sun. Thirty or more babies, in various stages of dress and undress, smiles and squalls, each with a busy and interested mother! A dozen or more uniformed nurses hurrying about, some carrying babies, some on other business bent. A peep at an interior room showed several doctors busy as bees finding out the ailments of small children and admonishing their respective mothers! Nearly a nurse weighed naked babies as fast as she could weigh them, to see whether they were suffering from over-feeding, or from malnutrition, or were "just right"! One little girl screaming "blue murder" because she was afraid of the scales!

On the whole, however, the babies and the little tots next to the babies, of whom there were a goodly number, looked happy and interested. There were smiles as well as tears. And some of the smiling ones looked sweet enough to earn the baby prize on the spot. Sweet smiles, however, did not count in the award. "The child has to be *scientifically* perfect" we were told, that is, as nearly perfect as possible in regard to weight, measurements, etc. A prize of \$5, by the way, is given for the best baby each day while the demonstration lasts.

As the busy scene went on the halls were crowded with people; mothers bent on finding out the most they could about caring for their children; school teachers and even the Inspector himself, alert for new ideas; medical students on a "hunt for good stuff", as one of them said; and the usual number of mere sight-seers, who were bound to go away with a good idea or two appending.

One busy-haired little woman stood looking into the baby-room door with undignified wonder.

"So this is what you call a 'clinic,'" she said with a strong cockney accent. "I thought it was something like being vaccinated!"

"No, no!" said her companion. "If people only would speak plain English and call it an 'examination', folks wouldn't be so mixed!"

"And they do it all for nothing?" "Not a ha'penny" asked for it all. "I think it's pretty good of the doctors and nurses to give up their time, don't you?"

"Sure thing!" evidently the little English woman was extending her vocabulary after approved American methods.

The two passed on, and a booming voice came out to speak to a friend. "We expected thirty babies to lay," she said, "and what do you think? We've



A New "Pied Piper"

Illustration by Grandma Robertson

had one hundred thought one the job, but every one p Don't you thi Just then on her way to little one in h old," she ex been able to s "Do you t for her?" "Perhaps.

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GROWN they k readily than from t Perhaps, the little "scenes" humans, and wants to go a In one pla and outdoor rather, very liness and s the "family" of doors, strai flies were go In anot was represen and directly a which lay a tu moment one line" from t bedroom, the window and s Ugh! again.

DOES w danger cup, a truth that o out of ten die of one year— chiefly to ign mothers!

To help to more charts y needs of the b The baby m nor too muc very small, the very rig dandled, nor taken up fro He may be p here's baby a sweet an I ch be spoiled. Little thing, babies the b ing "not to Ebbahere, country use to just an imbl his own, wil be a small to be small treat the ot comend wi rable, adding the "A. V. the "A. V. r

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had one hundred and seven already! We thought one doctor would be able to do the job, but there have been nine—and every one perfectly lovely about it! Don't you think it's just grand?"

Just then another nurse came along on her way to the clinic, carrying a quiet little one in her arms. "She's two years old," she explained, "and has never been able to sit up or take a step yet."

"Do you think anything can be done for her?"

"Perhaps," Dr. T. thinks so."

GOVERNMENT HEALTH EXHIBIT.

FROM the babies we passed directly into the room given over to the "Government Health Exhibit", and most instructively illuminating it proved to be.

Along one side was arranged a series of illustrated charts, giving in sharp, pithy sentences, much information in regard to taking care of children—yes, and adults too, since upon the foundation laid in childhood, usually is built the superstructure of strength and capability, or weakness and inefficiency, that follows the adult through life.

"Pointers" were here on the kind of food necessary and the way it should be eaten; on the imperative need of having adenoids removed; on the care of eyes, skin, teeth, even of the feet, the last named fixed by three pertinent questions: "Do you want your child to toe in like a duck? out like a cornorant? or to walk straight like an Indian?" followed by a few words on the need of straight walking and rational shoes.

"Swat the Fly!"

GROWN people are like children; they love pictures and learn more readily from "concrete material" than from the abstract. This is why, perhaps, the Government has had actual little "scenes" built, with dolls to represent humans, and flies so realistic that one wants to go at them with a swatter.

In one place was a house, barn, yard and outdoor toilet, all complete or, rather, very incomplete, so far as cleanliness and sanitation go. In the house the "family" sat at supper. From out of doors, straight from the barn and toilet, flies were going in to the table. Ugh!

In another corner a grocery store was represented, with a barnyard near and directly above the store a bedroom in which lay a tubercular patient. Watching a moment one saw flies going in a "bee line" from the manure heap into the bedroom, then out again through the window and straight into a sugar barrel! Ugh! again.

One in Ten.

DOES were used also to show the dangers of the common drinking cup, and to illustrate the awful truth that of all the babies in Ontario, one out of ten dies before it reaches the age of one year—an appalling mortality due chiefly to ignorance on the part of the mothers!

To help to do away with that ignorance more charts were provided, telling simple needs of the baby—and of the mother too. The baby must not be fed irregularly, nor too much—because his stomach is very small. And his food must be of the very right kind. He must not be dandled, nor kissed on the mouth, nor taken up from sleep to be shown to a friend. He must be properly clothed. He must have plenty of fresh air. He must be kept sweet and clean, and his eyes must not be spoiled by harsh, glaring light. Little things, these? And yet how many babies die because of ignorance in knowing just how!

Elsewhere we found a very simple contrivance for relieving a child of croup; just an umbrella put over his head, in his cot, with double sheets over it to form a small tent; at the side a small teakettle of boiling water, the spout connected with the tent by a piece of rubber tubing with an ordinary funnel at the end. As the steam goes into the tent the croup is relieved.

Exhibits and Lectures.

EXHIBITS to show the care of tubercular patients, the need of pure milk, the necessity of vaccination, and other parts of the building, again show the care that is being taken on the educational side of child-health, from the kindergarten school of the city, and of manual training and home work from the higher grades. A

"Diet Kitchen" was in charge of Miss Stanley, Matron of the General Hospital, while in the adjoining auditorium were "movies" on health subjects and the care of babies in particular, and addresses given by leading physicians of the city.

How to Bring it to Your Locality

HOW should one go about having such a demonstration come? we asked of Mrs. Hill, truly "right-hand-man" in this work to her husband, Dr.

begins, and do everything you can think of to get the mothers out."

Elsewhere we learned that in London "everyone" had responded splendidly—the doctors, the two hospitals ("Victoria" and "St. Joseph's"), the Victorian order of nurses, the London Health Association and the kindergarten teachers, indeed all of the teachers, for through them so many of the mothers were reached.

That was how "Child's Welfare Week" was carried out in London. And that is



The Dreamland Baby.

"Over the house-top, the mountain and stream, higher and higher, Love, soon you will fly into dreamland on Love's Lullaby."

Drawing by Gertrude Robertson. From "Love's Lullaby."

H. W. Hill of the Institute of Public Health, who was really at the back of the movement in this place.

"Write to the Provincial Board of Health" (Parliament Buildings, Toronto), she said, "and all information will be sent you. Form your committees, then get everyone to work and work hard. Advertise well before the demonstration

how a similar one may be carried out in your town or your district.

The Government Exhibit, by the way, including the moving pictures, comes in charge of someone who is prepared to speak part of the time, on this occasion Miss Powes, Chief of the Bureau of Child Welfare, Provincial Board of Health Toronto.



Indian Babies in Northern Ontario.

Photographed by Miss Brittain in 1914. The babies are wearing rabbit skin suits.

Photo by S. G. ...

As a result of the "week", a Western Ontario Child Welfare Association has been formed. Do you not think that you need a branch in your district?

Bairnies Cuddle Doon.

BY ALEXANDER ANDERSON ("Surfacedman").

The bairnies cuddle doon at night Wi' muckle taught an' din; "Oh, try and sleep, ye waukie bairnies, Your faither's comin' in." They never heed a word I speak I try to gie a broon, And aye I hap them up an' cry, "Oh, bairnies, cuddle doon."

Wee Jamie wi' the curly heid He aye sleeps next the wa', Bangs up an' cries, "I want a piece." The rascal starts them a', I rin an' fetch them pieces, drinks, They stop awee the soum', Then draw the blankets up an' cry, "Noo, bairnies, cuddle doon."

But ere five minutes gang, wee Rob Cries out, frae 'neath the claes, "Mither, mak' Tam gie ower at ance, He's kittlin' wi' his taes." The mischief's in that Tam for tricks, He'd bother half the toon; But aye I hap them up an' cry, "Oh, bairnies, cuddle doon."

The bairnies cuddle doon at night Wi' mirth that's dear to me; But soon the big warl's cark an' care Will quaten doon their glee. Yet, come what will to ilka aye, May He who rules aboon Aye whisper, though their paws be bald, "Oh, bairnies, cuddle doon."

Medical and Dental Inspection in Schools.

ONE of the outstanding impressions carried away from the Child Welfare Demonstration invariably is that the need for medical and dental inspection of schools everywhere is most imperative.

Cities and towns in Canada have already recognized this need, and a considerable majority of them already have school nurses to make regular visits and a dentist to attend to the needs of the children's teeth. The benefit can scarcely be estimated. By the visits of the nurse, not only are epidemics to a great extent prevented, but deficiencies in eyesight, hearing, the presence of adenoids, etc., are detected, and on the nurse's advice, the parents are enabled to take such steps as will remove the defect. The nurse also teaches the children how and when to use a toothbrush, and keeps a sharp lookout to see that the sanitary conditions of the school are above reproach, and that the seating, lighting, etc., of the various rooms is such that the health of the children is not impaired. The school dentist, on the other hand, makes it possible for the children's teeth to be kept in order at the lowest possible cost.

When it is understood that bad hearing, defective eyesight and adenoids tend to make children dull intellectually, at least much duller than they would otherwise be, to say nothing of the ill effects of such defects on the general health, and that bad teeth not only cause acute suffering but give rise to serious digestive trouble and, occasionally, even facial distortions, some idea of the value of this inspection and care may be imagined.

As yet the rural districts lag sadly behind the cities in this respect, although initial steps are being taken to supply the need. In many districts "Medical Inspection of Schools" has become a reality, chiefly through the efforts of the Women's Institutes, and in some instances very successful clinics have been held. In the cost has, in many places, been kept down by the splendid generosity of women in the group, who have offered their homes as temporary hospitals and have volunteered their services gratis. In every place where a dentist and a nurse have been secured, who have been willing to do their work at the lowest possible cost, a saving, amounting, in all of the rural districts, to some 500,000 parents, should be made to be felt.

Although it is well that will eventually grow, with the establishment of more frequent dental inspection in this way, and

more regular clinics. Surely the time should not be far away when every township will have its school nurse, and every locality its yearly clinic.

It is safe to say that every district which has already tried the experiment even once is ready for this, but it must be pointed out that, as yet, these instances are far too few. One of the features of the Government Child Welfare Exhibit is a map of Ontario upon which circles and diamonds of red show the places in which Child Welfare work is being done and medical inspection of schools has been introduced. While the latter show an encouraging start, the large sections of map upon which no little red diamonds are pasted also show that there are still vast sections of our province in which the children are just "growing up" like Topsy, without any of the expert care and supervision which more fortunate children are receiving. This should not be so, for it is a pity that some children should face life with so very much worse a start than others. Everything possible should be done to make the child well both in body and mind. He is not old enough to do these things for himself.

It has been stated by medical experts in the United States that a great percentage of the young men turned away from joining the American army because of being physically unfit, were rejected because of ailments and defects that could have been removed by proper attention during childhood. No doubt the same has been true of men turned away from our own army. This shows the appalling need of greater care of the health of children, for if young men are not physically ready to do the war-work of the nation properly, then they are not ready to do its peace-work properly—not even the work of parenthood, since physically unfit fathers are very likely to transmit weaknesses to their children. What is true of the young men is equally true of the children.

If you, reader, are wise, you will see to it that Medical Inspection of Schools becomes speedily a feature in your own neighborhood. Start it. Don't wait for someone else to do so; you may have to wait a long time. Call a little informal meeting, talk the matter over, write to the Department of Public Health, Parliament Buildings, Toronto, for information and help, form your committees and get to work. You will find that it will be easier than you think.

Little Brown Baby.

BY PAUL LAURENCE DUNBAR.

Little brown baby wif spa'klin' eyes,
Come to yo' pappy an' set on his knee.
What you been doin', suh—makin' san' pies?

Look at dat bab—you's ez dirty ez me.
Look at dat mouf—dat's merlasses, I bet;
Come hyeah, Maria, an' wipe off his han's
Bees guine to ketch you an' eat you up yit,
Bein' so sticky an' sweet—goodness lan's!

Little brown baby wif spa'klin' eyes,
Who's pappy's darlin' an' who's pappy's chile
Who is it all de day nevah once tries
Fu' to be cross, er once loses dat smile?
Whah did you get dem teef? My, you's a scamp.
Whah did dat dimple come f'om in yo' chin?
Pappy do' know you— I b'lieves you's tramp
Mammy, dis hyeah's some ol' straggler got in.

Let's th'ow him outen de do' in the san';
We do' want stragglers a-layin' 'roun' hyeah.

Let's gin him 'way to de big buggah-man,
I know he's hidin' 'eroun' hyeah right neah,
Buggah-man, buggah-man, come in de do',
Hyeah's a bad boy you kin have fu' to eat,
Mammy an' pappy do' want him no mo',
Swaller him down f'om his haid to his feet.

Dab, now, I t'ought dat you'd hug me up close,
Go back, ol' buggah, you shan't have dis boy;
He ain't no tramp, ne' no straggler, er co'se;
He's pappy's palmer, an' p'lyt'are, an' joy.

Come to you' pallet now—go to yo' rest.

Wish you could allus know ease an' cleah skies

Wish you could stay jes' a chile on my breas'

Little brown baby wif spa'klin' eyes!

Books For Mothers

Write to the publishers for the price of the following books. The first seven are published by McClelland, Goodchild & Stewart, Toronto.

The Care and Feeding of Children.—Dr. Emmett Holt.

Home Care of Sick Children.—E. L. Coolidge, M. D.

The Mother and Her Child.—William S. Sadler, M. D.

Tokology.—A book on "Maternity."

Child's Garden of Verses.—by Robert Louis Stevenson.

Bedtime Story Books.—by Thornton W. Burgess.

Stories to Tell to Children.—by Sarah Cone Bryant.

Golden Numbers.—by Kate Douglas Wiggin, Houghton Mifflin Co., Boston.

Holidays in Mother Goose Land.—by Mary Higgins, Newson & Co., Publishers, New York



Very cunning, but don't make children dread the dark, or the doctor, or starting to school.

Hope's Quiet Hour.

A Kingdom at Peace.

Let the peace of Christ rule in your hearts.—Col. 3: 15, R. V.

"Just to let thy Father do
What He will;
Just to know that He is true,
And be still,
Just to follow, hour by hour,
As He leadeth;
Just to draw the moment's power
As it needeth.
Just to trust Him, this is all!
Then the day will surely be
Peaceful, whatsoe'er befall,
Bright and blessed, calm and free."

The verse given above was written by Miss Havergal—a woman who had tested the power of her Master to give peace, and was amazed to discover that the river of peace could not be stopped or turned aside by any trouble she had to endure. In delighted astonishment she wrote:

"I never thought it could be thus—
Month after month to know
The river of Thy peace without
One ripple in its flow;
Without one quiver in the trust,
One flicker in its glow."

We look out on the struggling nations of today, and feel disheartened to see how far away any real peace being that had in it for a long time. In any

case, a "patched-up" peace is like a patched garment; it is strengthened in one spot and liable to break into a hole somewhere else. Where can we find a kingdom—right here and now—where peace flows on like a river, a peace that can be depended on to last?

Look at our text. We can have the peace which passeth understanding if the Prince of Peace is allowed to rule in our hearts. In the margin of the Rev. Ver. the word given is not "rule" but "arbitrate." Christ must be given the supreme command, His orders must be obeyed without question, if we are to have peace. When there is a conflict of masters there can be no peace.

Miss Havergal's peace was unshaken even when death tried to terrify her. It is recorded that when the doctors told her she was about to die she said: "Beautiful! It is too good to be true. Oh, how splendid to be near the gate of heaven!"

It is possible to rest in unshaken peace, though our future—and the future of our loved ones—is all unknown, though death may be shadowing us and ours, for "Jesus we know, and He is on the throne." Real peace is not an outer but an inner thing. Everything may be going smoothly in outward affairs, and yet men and women may be weary witnesses

soul, dissatisfied, wanting they know not what.

On the other hand, everything may seem threatening on the outside, while the peace of God flows like a river through the heart. The kingdom of God is "within" you, said our Lord. It is not a far-off dream of happiness, but a present reality—if the Lord of Peace be allowed to "arbitrate within" us. It is not enough to let Him rule in our outward actions, we must enthrone Him in the kingdom of our hearts—we must, as St. Paul says, bring into captivity "every thought" to the obedience of Christ.

That means the submission of our will to His Will. He must decide, not we. Our business is only to accept His decisions and obey His orders. Has He placed you in your present position and given you special work to do? Then you know it is all right; and the restless desire to be somewhere else, or doing some more "interesting" work will be driven out by the joy of serving the King.

A few nights ago I had a very vivid dream. I thought I was talking to someone, and suddenly I saw he had the face of Christ. Then I turned to another person and another. Everywhere I saw the face of Christ. I woke up with the glad thought: "I can serve Him every day and all day. The most unattractive person I have dealings with to-day will be transformed into the image of the King. I must speak to him remembering that my words are spoken to Christ. Inasmuch as I do him service I am allowed the privilege of serving as a member of the King's own body guard. Even in my thoughts—especially in my thoughts—I must be just and kindly, giving love to the Invisible King who meets me in the person of the least of His brethren."

A modern writer describes a crowd of people worshipping God in a great cathedral. Then the King is seen in the midst. He passes through the concourse of people and richly robed priests, and goes straight to a poor woman who is sweeping the floor. "Daughter," He says to her, "Thou sweepest well my floor." What an uplift for the heart when the every-day business of life seems a wearisome and monotonous strain! The woman on her knees, scrubbing a kitchen is cleaning the King's floor. The farmer is tending "His sheep" as truly as the clergyman who is ordained as an under-shepherd to care for the flock of the Good Shepherd. The mother, with her overflowing basket of stockings to mend, can smile happily over her work for Him,

Who has said: "Whosoever shall do the will of my Father which is in heaven, the same is my brother, and sister, and mother." Listen to His voice as He says: "thou mendest 'My' stockings well."

If we are not living under the shadow of the King of Peace it is our own fault. He does not offer to shelter us from trouble, far from it. In the same breath He says: "In Me ye might have peace," and "In the world ye shall have tribulation." Peace can flow like a river in the midst of pain and trouble. Look at the King on the Cross, as He commends His spirit into the Father's hands:

"Yet strong in death, in perfect peace commending Thy spirit to Thy Father and Thy God."

The Rev. Innes Logan, a military chaplain, says he is sure that the wonderful courage and patience of innumerable soldiers "have their root in a genuine religious experience more often than is, in the battalions, immediately evident." In fact—in the heart of the Great War—many a soldier is living and dying for the Prince of Peace.

Mr. Logan found that JESUS was the Name above every name in the hearts of men who were unable or unwilling to talk about their secret devotion. He writes: "It has been my experience, again and again, that with dying men who have sunk into the last lethargy, irresponsive to every other word, the Name of Jesus still can penetrate and arouse. The hurried breathing becomes for a moment regular, or the eyelids flicker, or the hand faintly returns the pressure. I have scarcely ever known this to fail though all other communication had stopped. It is surely very significant and moving."

Significant of what? It can only be significant of the fact that those men knew and loved "The White Comrade," as they call the Living Christ. Take heart, you anxious mothers! If your son's closest Comrade is the King (who chose for His own dangerous post the place of greatest hardship and suffering) then your son is safe—whatever happens. Why should we say sadly, "Thy Will be done?" Why, it is our one hope for the world and for ourselves that God's Will may be done! We talk mournfully about being "submissive to God's Will," instead of glorying in His Will being fulfilled. The shout: "Thy Will be done!" is a bugle-call leading us on to victory—the only victory that is worth winning. "He always wins who sides with God!"

"Into the future, that unknown land, Fearless then venture holding God's hand; Trusting His promise, waiting His Will, Spt by His power, peaceful and still."

DORA FARNCOMB.

Gifts for the Needy.

I am finding it hard to keep the Q. H. P. fastened, in these days, or to make the outgoings keep pace with your flow of dollars—though I manage to pass on a great deal of your money in the course of a year

During last week I received \$2.00 from W. A. B., \$5.00 from Mrs. J and "A Friend" in Lucknow, \$1.00 each from W. F., Mrs. T. and L. A. H. M. (This last dollar was "for an aged person," and went out at once to an elderly widow.) Then an order for ten dollars, from S. J. R. reached me to-day, sent especially for "some old father and mother."

I will do my best to be a faithful steward of your bounty.

For the Needy and Sick.

Since last week two gifts for the needy were placed in my care by readers of the Quiet Hour. "M. B. L." sent five dollars—which went out at once to three poor families—and "A. W." sent ten dollars. Part of this has been spent on necessities for a young widow, who is sick and entirely dependent on charity. The rest is waiting in the Q. H. P. until urgently needed.

Two parcels of S. S. papers have arrived and will soon go on their way to the "shut-in."

Heartiest thanks for your many kindnesses!

DORA FARNCOMB,
52 Victor Ave., Toronto.

Gen. Who has re and is su

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Officers are being Canada.

A move peat bogs

Abdul H died in Co

Among Hun submarine, "Fris and, on Fr seven days submarine the past w in British marines.

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52 Victor Ave., Toronto.

The

A fund and all w war. Contribu 15th. A. cent. Mrs Om. \$5. dom by M and Mrs. \$7. Mrs. V \$5. John \$1.50. Sa Om. 50 ce View. 50 ce



Gen. Sir William Robertson.

Who has resigned as Chief of the General Staff, and is succeeded by Gen. Sir H. H. Wilson.

Current Events

Officers and men of the First Contingent are being given their first furlough in Canada.

A movement is a foot to develop the peat bogs of Canada for fuel.

Abdul Hamid, former Sultan of Turkey, died in Constantinople.

Among the vessels sunk recently by Hun submarines were the Belgian Relief ship, "Friedland", three Spanish vessels, and, on Feb. 15th, a British trawler and seven drifters which were looking for a submarine in the Straits of Dover.

During the week artillery action and raids have continued along the West front, the enemy's trenches at Lens being again raided by Canadians on Feb. 14. Preparations continue for the great battle which is expected in the Spring, and for which the Germans are said to have gathered a total of 2,340,000 men along the Western front.

In Greece a German conspiracy against the Venizelos Government, said to have been instigated by ex-King Constantine, has been discovered and crushed.

Russia remains confused as ever. Totsky's statement, at the close of the Brest-Litovsk parleys, that the armies of Russia would be demobilized but that the Bolshevik Government would not sign a formal peace, evidently has not pleased the Germans, who, it is reported, are meditating a new movement against Russia, directed especially against Petrograd.

The Dollar Chain

A fund maintained for the soldiers and all who are suffering because of the war.

Contributions from Feb. 8th to Feb. 15th: A. P., Lambton Co., Ont., 50 cents; Mrs. A. Winters, R. 3, Brantford, Ont., \$5. Amount raised by needlework done by Mrs. B., Mrs. M., Mrs. Mc., and Mrs. J., all of R. 2, Perth, Ont., \$7; Mrs. Wm. Johnson, R. 2, Perth, Ont., \$5; John Campbell, Rockwood, Ont., \$1.50; Sarah McMillan, Birch Grove, Ont., 50 cents; Arthur Jackson, Downsview, 50 cents; "A Reader", \$2.

Previously acknowledged \$5,198.40

Total to Feb. 15th \$5,220.40

Kindly address contributions to The Farmer's Advocate and Home Magazine, London, Ont.

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

Dear Ingle Nook Friends,—Just a few lines this time. Elsewhere in this paper you will read much of our Child's Welfare Week—which may be your Child's Welfare Week too, or at least you may have one similar to it in your own town or district if you wish. We have all been quite enthusiastic over it here, and I just want to add that yesterday, filled with the subject, I called up Mrs. Hill by Telephone and asked her if she would be willing to go out to "other" Child Welfare meetings, if needed. She said she would be delighted to go anywhere in Canada if her expenses were paid, asking no further remuneration.

She speaks well—I have heard her. And she knows the whole subject from A to Z. Why should she not? She is the wife of Dr. H. W. Hill of the Institute of Public Health, and is quite as enthusiastic as he about all things that pertain to the welfare of the public. Not long ago I heard another worker in the P. H. Institute say "Dr. Hill is the most altruistic man I have ever known."

Now, this is just a suggestion that you—Women's Institute Workers or others—may act upon if you decide upon carrying out a Child's Welfare Week in your vicinity. One speaker goes with the Government Exhibit; you will need to secure others, locally—doctors and nurses—for the afternoon and evening meetings; Mrs. Hill, if you care to have her, will be another. You can reach her by addressing "Care of Dr. H. W. Hill, Institute of Public Health, Ottawa Ave., London, Ont."

I am very glad to make this suggestion.

A National Flower.

At the last Convention of the Horticultural Association a proposal was brought before the meeting for the choosing of a national flower for Canada,—such a flower as can be planted and will thrive on the graves of Canadian soldiers in France and Flanders. In the report of the committee which have the matter in hand, six flowers are mentioned, viz., columbine, perennial aster, trillium, iris (flag), delphinium (larkspur), and peony. The choice of the people of Canada is asked. Any suggestions sent to The Farmer's Advocate and Home Magazine will be forwarded to the Committee at Ottawa.

Needle Points of Thought.

"Henceforth we must think in terms of humanity instead of in terms of nations." —The Bookman. "The man who will not change his opinion for principle is a dishonor to his country."—Sir John Willison.

A Talk to the Girls.

Dear Junia.—I wonder if there is still a place left by that cosy fireside for "The likes o' me."

I have come to chat a little while with the girls this time. But! I hope Junia will not think I have overlooked her. Girls, those who are going to be "Hired Men" this year in the fields, we hear a lot about the overalls, but, I have an idea of something I think will please you all more, and that is a uniform. I will call it that, made of khaki galatea. This is how I would make it: A waist made like the shirtwaist with two patch pockets and trimmed with brass buttons, a pair of bloomers made just long enough to go over the knees and have enough cloth left to make puttees to the shoe tops, and if you want to "fuss" up you could wear a pretty necktie, and, if you like, a boy scout hat. And when you got tired of all khaki you could wear a different waist with the bloomers. How many agree

Advertisement for Crown Brand Corn Syrup, featuring an image of a jar and text describing its quality and availability.

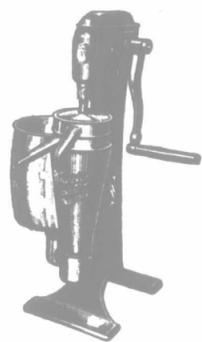
Every Little Bit Added to What You've Got Makes Just a Little Bit More

The "Little Bits" have been the foundations for most of the big fortunes of North America. Your "little bit" is right in that stream of skim milk that is carrying a goodly percentage of "skimmable" cream with it if any fixed-feed separator is being used.

Every little bit is saved and is turned into money by using a

SHARPLES SUCTION-FEED CREAM SEPARATOR

The reason for the saving is simple—the Sharples skims clean at any speed. Other separators do not—their construction prevents it. Only the Sharples has the suction-feed principle that draws the milk into the separating bowl in proper proportion to the speed of turning. No cream loss from slow turning—no bell-ringing bugaboo: just complete, uniform separation—that's the Sharples way. Any other way is wasteful. No discs in the Sharples—that means easy, quick cleaning. More than a million users are saving with a Sharples.



Write for catalog today; address Dept. 78

TORONTO, ONT. The Sharples Separator Co. REGINA, SASK. The Mitchell & McGregor Hardware Co., Brandon, Man.

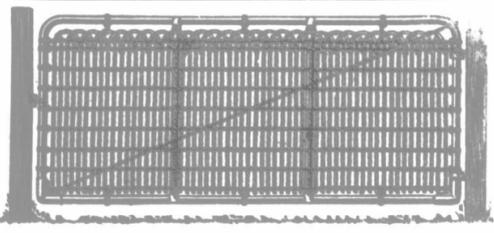
Distributors for Manitoba DC-3

Advertisement for Kline Fanning Mill, featuring an image of the mill and text describing its use for cleaning wild oats.

Advertisement for Hop-Malt Beer Extract, including a list of prices for various can sizes and contact information for the manufacturer.

EATON

Bargains That Bring Big Savings To You But Order Early as The Supply In Each Case is Limited



**Freight
Paid
to Your
Nearest
Railroad
Station**

**Don't Fail To Order One of These
Strong, Handsome Gates**

Note the Low Prices

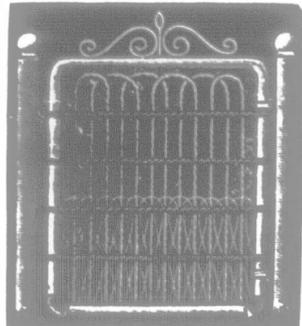
These splendid Gates are attractive, strong, and suitable for any driveway. The fabric is heavy corrugated fence wire, securely woven into the frame-work, all galvanized, and picket spacings only 1 1/2 inches apart. The frame is heavy tubular steel, with square bottom corners reinforced with malleable joints and braced to stand strain and prevent sagging. They are painted, and complete with latch and hinges.

71-41A. Size 14x48. Price, freight paid . . .	5.35	71-43C. Size 16x48. Price, freight paid . . .	6.35
71-42B. Size 14x54. Price, freight paid . . .	5.85	71-44D. Size 16x54. Price, freight paid . . .	6.75

Stylish Walk Gates

**Closely Priced
for
Quick Clearance**

One of the most handsome Walk or Lawn Gates we know of. Has metal tube frame with neat scroll on top. Filling of heavy crimped wire. An attractive design, as shown in cut, and all wire is galvanized. A strong and attractive gate at a very low price.



71-46G. Gate 3 feet x 28 inches. Freight paid	2.75
71-47H. Gate 3 feet x 36 inches. Freight paid	2.95
71-48I. Gate 3 feet x 44 inches. Freight paid	3.10

3,000 Line Posts

Reduced to, Each **29c**

Freight Paid in Lots of 25 and over

Now's the Time to Buy at this Unusually Low Price

Simply drive the steel line posts in the ground—no hard work digging post-holes. They are made of stiff, tough steel, and will last longer than cedar posts. The holes are punched 2 inches apart to fit the spacings of any fence, and wires are fastened by a loop of soft wire put through holes and twisted back of post. Thoroughly painted to withstand rust.

71-45F. Length 6 feet x 1 1/4 x 1 1/4 x 5/32. Price, each

29c

For other good values see our new Spring and Summer Catalogue. If you haven't got one, mail us a post-card—we'll do the rest.

Rope Making Machine 1.95

Less Than Half Price and Freight Paid

You can make anything from a fish-line to a 2-inch rope with this remarkable machine, and splice perfectly with it. Anyone can operate it, and it finishes the rope with a selvage that will not unravel. Halter-ties, clothes-lines, hay-rope, etc., can all be made. Twine or string of any kind can be used. It soon pays for itself. We send full directions with it for its many uses.

71-49J. Freight paid. Price **1.95**



Every Item a Money Saver

T. EATON CO

TORONTO - CANADA

Mail Your Order Early

SECOND ANNUAL CONSIGNMENT AUCTION SALE

SHORTHORNS

Under the auspices of the Bruce County Stock Breeders' Club
MARKET SQUARE, WALKERTON, ONT.

Thursday, March 7th, 1918

30 Shorthorn Bulls and Heifers

The animals to be offered are all of a high quality, and the majority of them are young bulls from six to eighteen months of age.

Terms cash, or six months' credit on approved joint notes at 6% interest.

Catalogues mailed on request to the Secretary.

W. A. TOLTON, President
R. R. No. 3, Walkerton, Ont.
N. C. McKAY, Secretary,
Walkerton, Ont.

with me that this would be a lot better than dresses that get caught on everything imaginable? And I think it would be nicer than even overalls. But, mind you, I am not saying anything against them. I think you could easily make up a bloomer suit, too, out of an old dress that you didn't want to wear any more.

Won't it be a joke when some stranger comes around some corner unexpectedly? But cheer up, girls; the boys are braving big things for us "over there," and we don't want them to come back and find us shirking our duty here.

So girls, let's all do our bit as well as we can this summer in what work we have to do, and let's help "Old Ontario" do her share. The main thing in the fields, girls, is to keep your nerve, and don't let little things bother you, even when Big Brother wants to let you know he is boss and when you are given the old team that seem to think they know when it's dinner time, and stop every time they reach the end of the field that is next the barn. And, girls, if I did not understand how to hitch up the horses I would slip out to the barn some day when Big Brother is going to hitch up the team, sometime, too, when he is "pretty good-natured," and get him to show me how to do it. I think perhaps it would be easier to learn to unharness the horse at first as there is a "knack" of doing it, and the same is used in putting the harness on again. After I had learned to unharness then I would learn to harness up again.

There will be times when things try your temper fearfully, but you must "just keep cool" as the old saying is.

Girls, this year above all years the motto should be "work," early and late with what crops we have. When there is so much said about economy it is a little as we can do to help in every way we can. Now girls, don't let the boys do their duty one bit better than we do ours, and may we all show the city folk what farm girls can do and will do this summer. I know we did well last summer, but that is but a small share to what we can do this summer if we only put our shoulder to the wheel.

Now girls, let's hear from you, all your different sides of this story, and perhaps we can show the city folk our side of this question in a different light.

What are the girls in your district doing in Red Cross work? In November last we organized a Girls' Club, that meets once a month at the home of one of them. The membership is growing every meeting and good work is being done. We have a president, etc., down to different committees, and we knit socks and show others how; and at each meeting we do something different besides. We made candy to send to the boys for Christmas. At one meeting we made little bags for the soldiers to put their private belongings in. We pay 50 cents a year as members. With this each gets a little pin in gold and green. I think we will be having a concert soon and maybe a bazaar. At the local fair the girls sold tags and realized about \$100.00 besides what the R. C. got at the booths on the grounds.

Now is the time to get started, girls, when everyone can find time to attend and so get interested before the rush of summer comes. Besides what this does for R. C. we get together and make new friends, too.

How many of you are thinking of raising chickens this year? I know that there are very few of you that cannot coax your people to let you have some eggs to try your luck on, and if they are early ones you will be surprised at the amount you will get for them. Get some one to pick out the good eggs for you. The ones that are well shaped, and you will have better luck with them than if you just took the unlucky number (13) from anywhere.

Well girls, I wish you all every success this year, and hope that you will all do your duty as you see it, as there are so many ways one can help. Thanking Jimia for this space, with kindest regards to you all. I remain,
ONE OF THE GIRLS,
"A Hired Man Pro Tem."

Surely such an enthusiastic letter from "one of them" presages very brisk work among the girls this year. I think your idea of a uniform splendid, only I should balk at the puttees, which take a long time to put on neatly and are hot on summer days. True, the soldiers wear them, but men are "queer things" in some re-

WANTED

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

ADVERTISER WANTS TO OBTAIN FARM on shares or for cash rental. Farm stock and implements. Give full particulars. Box "3", Farmer's Advocate, London.

FOR SALE—FARM 200 ACRES, FIRST-CLASS buildings and stabling. Brick house, slate roof, modern conveniences. Land all under-tiled; lots of water, good orchard and hardwood bush; also house for hired man. Apply Box 142, Springfield, Ont.

FARM FOR SALE, 100 ACRES, 100x100 rods. Clay loam, two miles from city of 18,000, and one of the best markets in Canada. Soil will grow any fruit, grain or vegetable grown in Ontario. Two houses, first class barns, etc., running water in house and barn; all underdrained; good fences; never been rented; 10 acres wheat, 40 acres plowed, balance seeded. E. McCredie, St. Thomas, Ont. Bell Phone.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

A GOOD TOULOUSE GANDER, PRICE \$7.00. A. Stevens, Lambeth, Ont.

CLARK'S ORPINGTONS AND O.A.C. ROCKS; 50 Buff and White Orpington Cockerels, vigorous, good color and type, \$3 to \$5 each; 50 females good laying strains, 15 O.A.C. Laying Strain Rock Cockerels \$2.50 and \$3.00. Setting eggs in season. Order from an old and reliable breeder; satisfaction guaranteed. J. W. Clark, Cedar Row Farm, Cainsville, Ont.

FOR SALE, MAMMOTH BRONZE TURKEYS. Angus Beattie, R. 1, Wilton Grove.

GRAND S.-C. RED COCKERELS \$4; PARK'S famous Barred Rocks, \$3; pullets, \$2. Harry Backus, Chatham, Ont.

INDIAN RUNNER DUCKS, PARTRIDGE Wyandottes, Barred Rock, Rhode Island Red, Silver Campine, Black Spanish, Cockerels. Bred right—priced right. One twenty-pound Mammoth Bronze Turkey hen at \$10.00. John Anneser, Tilbury, Ont.

FOR SALE — PURE-BRED, LARGE, Rose-Comb Brown Leghorn Cockerels, bred from our best pens, at most reasonable prices. Satisfaction guaranteed. Galloway & English, Ingersoll, Ontario.

RINGLET BARRED ROCKS; TRAPNESTED, heavy winter laying strain. Eggs, \$3.00 setting, guaranteed. F. Coldham, Box 12, Kingston, Ont.

REGISTERED SCOTCH COLLIE PUPS—dam, Holyrood Bell, sire and dam imported; sire Holyrood Donald, imported. Arthur Gilbert, Mount Elgin, Ontario.

Rose Comb Rhode Island Reds Two cocks, and a number of cockerels, good laying strain, at \$3.00 each while they last. ALEX. MCKINNEY, ERIN, ONTARIO.

High Grade Seed

Registered 1st Generation, O.A.C. No. 72 Oats, \$2.00 per bus., Government germination test 97%. Improved O.A.C. No. 72 Oats, grown from strains of registered seed, \$1.60 per bus., Government germination test 98%. Registered O.A.C. No. 21 Barley, \$2.50 per bus., Government germination test, 97%. Improved O.A.C. No. 21 Barley, grown from strains of registered seed, \$2.00 per bus. The above grains have been produced from carefully graded, selected seed; guaranteed true to variety. Free from smut, and noxious weed seeds. Small, white field beans, extra good quality, \$10.00 per bus. All grains offered produced on our own seed farms. Samples sent on request. Sacks free. Prices, F.O.B. Alliston, C.P.R. or G.T.R.

Ruthven Bros., R.R. No. 2, Alliston, Ont.

ROOFING AT FACTORY PRICES

WE ARE THE LARGEST DISTRIBUTORS OF READY ROOFING IN CANADA. WE SELL DIRECT TO USERS. WE CAN SAVE YOU MONEY. WRITE FOR FREE SAMPLES.

THE HALLIDAY COMPANY, HAMILTON
FACTORY DISTRIBUTORS CANADA

Her (sighing): "O, I met such a lovely, polite man to-day."
Him: "Where was that?"
Her: "On the street. I must have been carrying my umbrella carelessly, for he bumped his eye into it. And I said, 'Pardon me,' and he said, 'Don't mention it; I have another eye left.'"
—Cleveland "Leader."



This looks like a scene in Ontario with the trees, the straight furrows and the perfect landscape. It is a photo of a field that has been cultivated for a thousand years, and shows a conservative English farmer who has hitched a

STAUDE MAK-A-TRACTOR

to an old Ford car and is pulling a double bottom English walking plow. You will notice he is making a good job of it.

Horses are necessary on the Ontario farm, and mechanical traction must supplement the work they do. The average Ontario farmer has not sufficient additional work to justify the purchase of an expensive tractor. This is where the Staude Mak-a-Tractor meets the power needs of thousands of farmers.

With improved cooling and oiling equipment the Ford engine makes a reliable little power plant, and running at half speed on high gear develops from 8 to 11 h.p. without putting the ordinary strain on the Ford engine or transmission.

The Staude Mak-a-Tractor can be hooked on to the Ford car or taken off at any time in less than 30 minutes. The farmer has a tractor available that will do the work of 4 good horses, that costs little to run and will attend to the following chores:

1. Pull his discs and cultivators and prepare the seed-bed.
2. Pull the mower.
3. Pull a load of hay and the hay-loader up any incline on which hay grows.
4. Nothing can beat it pulling the binder.
5. With power belt attachment supplies an 8 h.p. engine for filling silo and running the cutting-box.
6. Next fall will pull double bottom riding plow, and do faster, lower priced work than 4 horses will do.

These are facts. We have the signed statement of hundreds of farmers verifying them. The Staude Mak-a-Tractor costs \$240 in Ontario, and this includes special radiator, water pump and oiling system, which stay on the car. Write for booklet.

THE ONTARIO AUTO-TRACTOR CO., LTD., 157 Bay St., Toronto

spects—they never seem to mind heavy, uncomfortable things in warm weather.—J.

Variety in Fish.

Fish Salad.—Three cups cold flaked fish, a good salad dressing—oil dressing is best, if one likes it. Arrange the fish on lettuce or decorate it with a couple of thin slices of lemon. Pour the dressing over and serve at once.

Curried Salmon.—Take ½ onion, 1 tablespoon butter, 1 teaspoon curry powder, 1 cup hot water, ½ tablespoon flour, ½ tablespoon catsup, salt and pepper to taste, 1 cup cold salmon. Fry the onion brown in the butter, sift in the curry and flour, add the water slowly and stir until smooth. Add the seasoning and last the salmon. Serve very hot on toast.

To Bone a Fish.—Clean and skin, then, beginning at the tail, run a sharp knife under the flesh close to the backbone, and very carefully follow the bone its entire length, thus taking off half the flesh; then turn and remove flesh from the other side. Pick out any small bones that may remain. The flesh may then be cut in pieces, rolled in cornmeal or flour and fried in very hot fat.

To Boil Fish.—Clean, wash, and remove eyes and fins. Wrap in cheese-cloth and tie in shape, then put in boiling water to which a little salt and a tablespoonful of vinegar have been added. Boil very gently, allowing 10 minutes to each pound. Take out, remove the cloth and put on a hot platter. Pour hot white sauce around, garnish with anything nice that may be on hand—slices of lemon, parsley, chopped pickled beet, etc., and serve very hot.

Baked Fish.—Clean and remove eyes or the whole head if preferred. Rub with salt, fill with good stuffing and sew the edges together. Dredge with flour, put into a pan in which is a little fat, and bake 10 minutes. The oven should be hot and 10 minutes per pound, with 10 minutes extra, should be allowed for baking. Garnish prettily and serve with fish sauce.

Stuffing.—Season breadcrumbs with salt, pepper, grated onion and mixed seasonings, and mix in a little butter or melted dripping.

Fish Sauce.—Rub together 2 table-spoons melted butter and 2 table-spoons flour. Cook, adding gradually warm, milk until thick enough to suit. When done add a little salt, if needed, and dust pepper or paprika over the top. Some prefer a dash of nutmeg when the sauce is to be used with fish.

Fish Balls.—Mix left-over fish with mashed potato to which a little butter and seasoning have been added. Form into small balls or cakes, putting melted butter over each. Bake in a hot oven. If preferred the balls may be floured and fried.

Fish Chowder.—Boil separately white fleshed fish, onions and potatoes. Drain each, removing the bones from the fish. Mix together or put in layers, add white sauce and reheat. Serve very hot.

Salmon Loaf.—One small can salmon; 1 cup cracker crumbs; 1 egg; 2 table-spoons sweet milk; nutmeg, salt and pepper or paprika to taste. Break the salmon up, mix with other ingredients and bake in a well-buttered dish for 15 minutes. Turn out on a hot platter, garnish, pour fish sauce around and serve very hot.

E. LEONARD & SONS, LIMITED London, Canada

Agents for the

HUBER LIGHT-FOUR TRACTOR

IT took nearly twenty years' experience in the manufacture of Gas Tractors to reach the conclusion that the three bottom type is the Ideal Unit.

80% of the tractors sold in the United States are three plow tractors.

Less Gears, Less Bearings than any other make of Tractor. Roller Bearings are of the Hyatt make.

Buy a tractor like the Huber Light Four. Thoroughly tried and tested. Many exclusive features in design and construction. No freaks or fads.

In the 5,000 pound class. Easily pulls three 14 inch bottoms, set 8 inches deep. Plows an acre an hour. Runs all farm machinery, 18 h.p. at the draw bar, 24 h.p. at the belt. Burns gasoline, kerosene or distillate.

Our Folder "Doing the Impossible"

is a record achievement. It proves the excellence of the Huber.
Write for it and our proposition.

E. Leonard & Sons, Limited, London, Can.

Infantile Paralysis

made it impossible for this boy to stand, so he crawled on hands and knees. Four and a half months' treatment at the McLain Sanitarium "put him on his feet." Read his parent's letter.



We are pleased and very thankful for the improvement our boy has made. When we came to the McLain Sanitarium, March 22, 1917, he crawled on his hands and knees. After four and one half months' treatment he can stand erect and walk without crutches or braces. Will be pleased to answer letters concerning what you have done for our boy. Mrs. Chas. D. Speidel, Hanoverton, Ohio.

For Crippled Children

The McLain Sanitarium is a thoroughly equipped private Institution devoted exclusively to the treatment of Club Feet, Infantile Paralysis, Spinal Diseases and Deformities, Hip Disease, Wry Neck, etc., especially as found in children and young adults. Our book "deformities and Paralysis"; also "Book of References," free on request.

The McLain Orthopedic Sanitarium
861 Aubert Avenue St. Louis, Mo.

The Scrap Bag.

A Worn Broom.

When the broom is worn to a stub rip out all but the top row of stitching, soak in hot soapsuds and trim the bottom even. The broom will last quite a while longer.

Old High Chair.

Remove the arms, back and shelf from an old high chair, and so transform it into a good kitchen stool.

Stale Brown Bread.

If some pieces of stale brown bread are left, one way to use them up is to run them through the food-chopper, dry the crumbs in the oven and serve as a dry cereal for breakfast, with sugar and cream.

Dry Lemons.

When lemons have become too dry heat them in the oven, then squeeze out the juice.

The Windrow.

Since the war began the Women's Institutes of Ontario have contributed money and goods to the amount of \$750,000.

There is a proposal in the United States to make "Onward, Christian Soldiers" the battle hymn of the American army.

The Welsh artist, Mr. Augustus John, has gone to the West front as a Canadian major in order that he may paint pictures of Canadian soldiers. An exhibit of his works was recently held in London, England, the critic of "The Times" declaring him "the most famous of living English painters."

A New Song of Hate.

My Tuesdays are meatless,
My Wednesdays are wheatless,
I'm getting more eatless
Each day.

My home it is heatless,
My bed it is sheetless,
They're all sent to the
Y. M. C. A.

The bar-rooms are treatless,
My coffee is sweetless,
Each day I get poorer
And wiser.

My stockings are feetless,
My trousers are seatless,
By gosh—but I do hate
The Kaiser!
—ASHEVILLE CITIZEN.

Thoroughness.

Whatever you do in life do it with the same zeal, the same enthusiasm, the same thoroughness, which Stradivarius put into the making of his violins, which today are worth thousands of dollars apiece. The master violin maker needed no patent no trade-mark on his instruments, name was protection enough.

Make it your life-rule to stamp your best upon everything that goes through your hands.—Dr. Orison Swett Marden in *The New Success* for January.

"Man is a tool of God. At first I thought that it was a tool which man himself was called to work: now I have understood that it is not man who works, but God. The business of man is only to keep himself in order. . . I am a self-moving saw or a living spade and its life consists in this, to keep its edge clean and sharp. And it will work well enough, and its work will be useful. To keep it sharp and to sharpen and sharpen it all the time is to make oneself always kinder and kinder."—Tolstoi.

A Scotch minister in need of funds thus conveyed his intentions to his congregation:

"Weel, friends, the kirk is urgently in need of siller, and as we have failed to get money honestly we will have to see what a bazaar can do for us."—"Tit-Bits."

Canada Wants Sugar



IT is imperative that Canada produce, at home, all her food-stuffs. Sugar is one of the most important of these. Every pound of sugar imported into Canada means just so much *money leaving Canada*, to place the "balance of trade" against us.

Last year, Canada sent out of the country for sugar alone nearly 50 Million Dollars—leaving this country so much the poorer.

We Want Sugar Beets



HAD it not been for the sugar manufactured from *Beets* on this continent in November and December of last year and January of this year, there would have been a *real sugar famine*. Farmers who grew Sugar Beets last Fall can take credit for saving the situation.

In order to supply Canada with as much sugar as our three large refineries can produce, we call upon the farmers of Ontario to *Grow Beets*—and thus help us make Canada independent of foreign countries for this valuable and necessary food product.

So great is the need that we have agreed to raise the minimum price to be paid for Beets to

\$9.00 PER TON.

This price of \$9.00 per ton is our "flat" rate. The farmer has the alternative of contracting on a "percentage" basis at the rate of \$8.75 per net ton for beets containing 12% of sugar, and an increase per ton for each 1% of sugar above 12%.

You Want the Profit



BEETS ARE PROFITABLE

(From an address given by the late Dr. C. C. James, Dominion Government Agricultural Commissioner, at the Lambton County Corn Exhibition, January 28th, 1916.)

"Lambton County will find that there is no crop which, properly handled, will prove more profitable to the farming community than sugar beets. Sugar beets are a crop which take almost all from the air and from the rain and very little from the soil. If the tops are left in the field there is practically no exhaustion. In that they differ from grains which take much from the soil. It is a good sign that this industry is spreading in Canada. We have been importing from 12 to 15 million dollars worth of sugar that we might just as well be producing ourselves here at home."

UNDER normal conditions the price we now offer for beets would be impossible. It is only with the expectation that sugar prices will remain high that we pay on the above basis. In taking all the risk of lower prices ruling, *we are doing our part*. The grower is thus assured of a big profit, no matter how conditions may change.

This is a very real opportunity. A world hungry for sugar, and a shortage of such proportions that we must pay this highest known price for Beets.

Yours is the opportunity to "help out" in this crisis—you can help us meet the sugar emergency—and at the same time make good money for yourself.

We are sure all the farmers in the vicinity of our factories will do their part by signing up contracts for increased Sugar Acreage this year.

Every farmer who has not yet tried Beet Growing should write us now for Contract Form and Complete Information.

DOMINION SUGAR COMPANY
LIMITED

Head Office, 123 Tecumseh Road, Chatham, Ont.



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Serial Story.

An Alabaster Box.

BY MARY E. WILKINS FREEMAN AND FLORENCE MORSE KINGSLEY

By arrangement with McClelland, Goodchild & Stewart, Publishers, Toronto, Ont.

Chapter XV.

August was a month of drought and intense heat that year; by the first week in September the stream had dwindled to the merest silver thread, its wasted waters floating upward in clouds of impalpable mist at dawn and evening to be lost forever in the empty vault of heaven. Behind the closed shutters of the village houses, women fanned themselves in the intervals of labor over superheated cook-stoves. Men consulted their thermometers with incredulous eyes. Springs reputed to be unfailing gradually ceased their cool trickle. Wells and cisterns yielded little save the hollow sound of the questing bucket. There was serious talk of a water famine in Brookville. At the old Bolton house, however, there was still water in abundance. In jubilant defiance of blazing heavens and parching earth the Red-Fox Spring—tapped years before by Andrew Bolton and piped a mile or more down the mountain side, that his household, garden and stock might never lack of pure cold water—gushed in undiminished volume, filling and overflowing the new cement reservoir, which had been one of Lydia Orr's cautious innovations in the old order of things.

The repairs on the house were by now finished, and the new-old mansion, shining white amid the chastened luxuriance of ancient trees, once more showed glimpses of snowy curtains behind polished windowpanes. Flowers, in a lavish prodigality of bloom the Bolton house of the past had never known, flanked the old stone walls, bordered the drives, climbed high on trellises and arbors, and blazed in serried ranks beyond the broad sweep of velvet turf, which repaid in emerald freshness its daily share of the friendly water.

Mrs. Abby Daggett gazed at the scene in rapt admiration through the clouds of dust which uprose from under Dolly's scuffling feet.

"Ain't that place han'some, now she's fixed it up?" she demanded of Mrs. Deacon Whittle, who sat bolt upright at her side, her best summer hat, sparsely decorated with purple flowers, protected from the suffocating clouds of dust by a voluminous brown veil. "I declare I'd like to stop in and see the house, now it's all furnished up—if only for a minute."

"We ain't got time, Abby," Mrs. Whittle pointed out. "There's work to cut out after we get to Mis' Dix's, and it was kind of late when we started."

Mrs. Daggett relinquished her random desire with her accustomed amiability. Life consisted mainly in giving up things, she had found; but being cheerful, withal, served to cast a mellow glow over the severest denials; in fact, it often turned them into something unexpectedly rare and beautiful.

"I guess that's so, Ann," she agreed. "Dolly got kind of fractious over his headstall when I was harnessin'. He don't seem to like his sun hat, and I dunno's I blame him. I guess if our ears stuck up through the top of our bunnits like his we wouldn't like it neither."

Mrs. Whittle surveyed the animal's grotesquely bonneted head with cold disfavor.

"What simple ideas you do get into your mind, Abby," said she, with the air of one conscious of superior intellect. "A horse ain't human, Abby. He ain't on no idea he's wearing a hat. . . . The Deacon says their heads get hotter with them ridiculous bunnits on. He favors a green branch."

"Well," said Mrs. Daggett, foiling a suspicious movement of Dolly's switching tail, "mebbe that's so; I feel some cooler without a hat. But 'tain't safe to let the sun beat right down, the way it does, without something between. Then, you see, Henry's got a lot o' these horse hats in the store to sell. So of course Dolly, he has to wear one."

Mrs. Whittle cautiously wiped the dust from her hard, red cheeks.

"My! if it ain't hot," she observed. "You're so fleshy, Abby, I should think you'd feel it something terrible."

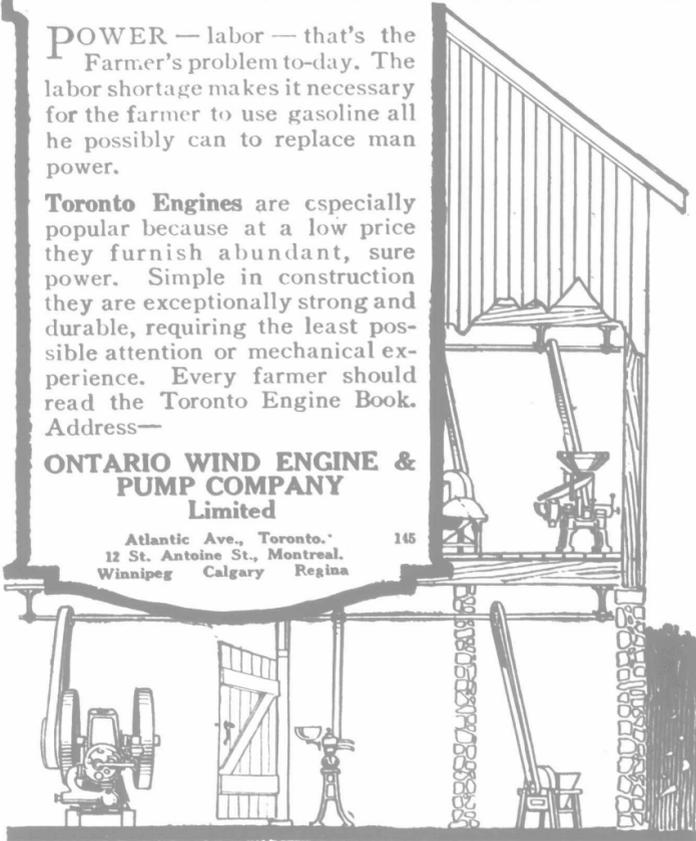
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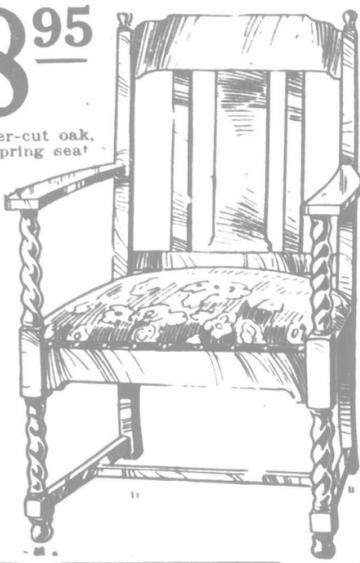
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Sale Will Commence at 2 o'clock

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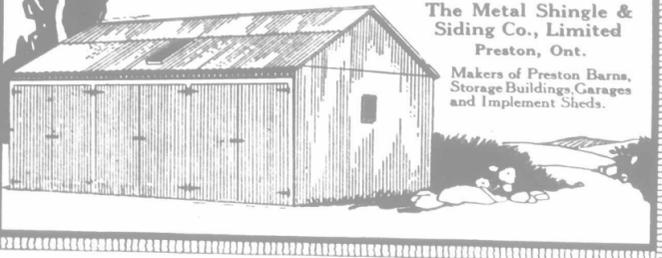
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"Oh, I don't know," said Mrs. Daggett placidly. "Of course I'm fleshy, Ann; I ain't denying that; but so be you. You don't want to think about the heat so constant, Ann. Our thermometer fell down and got broke day before yesterday, and Henry says 'I'll bring you up another from the store this noon.' But he forgot all about it. I didn't say a word, and that afternoon I set out on the porch under the vines and felt real cool—not knowing it was so hot—when along comes Mrs. Fulsom, a-pantin' and fannin' herself. 'Good land, Abby!' says she; 'by the looks, a body'd think you didn't know the thermometer had risen to ninety-two since eleven o'clock this morning.' 'I didn't,' I said placid; 'our thermometer's broke.' 'Well, you'd better get another right off,' says she, wiping her face and groaning. 'It's an awful thing, weather like this, not to have a thermometer right where you can see it.' Henry brought a real nice one home from the store that night; and I hung it out of sight behind the sitting room door; I told Henry I thought 'twould be safer there."

"That sounds exactly like you, Abby," commented Mrs. Whittle censoriously. "I should think Henry Daggett would be onto you, by now."

"Well, he ain't," said Mrs. Daggett, with mild triumph. "He thinks I'm real cute, an' like that. It does beat all, don't it? how simple menfolks are. I like 'em all the better for it, myself. If Henry'd been as smart an' penetrating as some folks, I don't know as we'd have made out so well together. Ain't it lucky for me he ain't?"

Ann Whittle sniffed suspiciously. She never felt sure of Abby Daggett; there was a lurking sparkle in her demure blue eyes and a suspicious dimple near the corner of her mouth which ruffled Mrs. Whittle's temper, already strained to the breaking point by the heat and dust of their midday journey.

"Well, I never should have thought of such a thing, as going to Ladies' Aid in all this heat, if you hadn't come after me, Abby," she said crossly. "I guess flannel petticoats, for the heathen could have waited a spell."

"Mebbe they could, Ann," Mrs. Daggett said soothingly. "It's kind of hard to imagine a heathen wanting any sort of a petticoat this weather, and I guess they don't wear 'em before they're converted; but of course the missionaries try to teach 'em better. They go forth, so to say, with the Bible in one hand and a petticoat in the other."

"I should hope so!" said Mrs. Whittle, with vague fervor.

The sight of a toiling wagon supporting a huge barrel caused her to change the subject rather abruptly.

"That's Jacob Merrill's team," she said, craning her neck. "What on earth has he got in that hoghead?"

"He's headed for Lydia Orr's spring, I shouldn't wonder," surmised Mrs. Daggett. "She told Henry to put up a notice in the post office that folks could get all the water they wanted from her spring. It's running, same as usual; but, most everybody else's has dried up."

"I think the minister ought to pray for rain regular from the pulpit on Sunday," Mrs. Whittle advanced. "I'm going to tell him so."

"She's going to do a lot better than that," said Mrs. Daggett. "For the land sake, Dolly! I ain't urged you beyond your strength, and you know it; but if you don't g'long—"

A vigorous slap of the reins conveyed Mrs. Daggett's unuttered threat to the reluctant animal, with the result that both ladies were suddenly jerked backward by an unlooked for burst of speed.

"I think that horse is dangerous, Abby," remonstrated Mrs. Whittle, indignantly, as she settled her veil. "You ought to be more careful how you speak up to him."

"I'll risk him!" said Mrs. Daggett with spirit. "It don't help him none to stop walking altogether and stand stock still in the middle of the road, like he was a green image. I'll take the whip to him, if he don't look out!"

Mrs. Whittle gathered her skirts about her, with an apprehensive glance at the dusty road.

"If you das' to touch that whip, Abby Daggett," said she, "I'll git right out o' this buggy and walk, so there!"

Mrs. Daggett's broad bosom shook with merriment.

"Fer pity sake, Ann, don't be scared," she exhorted her friend. "I ain't never

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touched Dolly with the whip; but he knows I mean what I say when I speak to him like that! . . . I started in to tell you about the Red-Fox Spring, didn't I?"

Mrs. Whittle coughed dryly. "I wish I had a drink of it right now," she said. "The idea of that Orr girl watering her flowers and grass, when everybody else in town is pretty near burnt up. Why, we ain't had water enough in our cistern to do the regular wash fer two weeks. I said to Joe and the Deacon to-day: 'You can wear them shirts another day, for I don't know where on earth you'll get clean ones.'"

"There ain't nothing selfish about Lydia Orr," proclaimed Mrs. Daggett joyfully. "What do you think she's going to do now?"

"How should I know?" Mrs. Whittle's tone implied a jaded indifference to the doings of any one outside her own immediate family circle.

"She's going to have the Red-Fox piped down to the village," said Mrs. Daggett. "She's had a man from Boston to look at it; and he says there's water enough up there in the mountains to supply two or three towns the size of Brookville. She's going to have a reservoir; and any body that's a mind to can pipe it right into their kitchens."

Mrs. Whittle turned her veiled head to stare incredulously at her companion.

"Well, I declare!" she said; "that girl certainly does like to make a show of her money; don't she? If 'tain't one thing it's another. How did a girl like her come by all that money, I'd like to know?"

"I don't see as that's any of our particular affairs," objected Mrs. Daggett warmly. "Think of havin' nice cool spring water, just by turning a faucet. We're going to have it in our house. And Henry says mebbe he'll put in a tap and a drain-pipe upstairs. It'd save a lot o' steps."

"Huh! like enough you'll be talkin' about a regular nickel-plated bathroom like hers, next," suspicioned Mrs. Whittle. "The Deacon says he did his best to talk her out of it; but she stuck right to it. And one wa'n't enough, at that. She's got three of 'em in that house. That's worse'n Andrew Bolton."

"Do you mean worse, Ann Whittle, or do you mean better? A nice white bathtub is a means o' grace, I think!"

"I mean what I said, Abby; and you hadn't ought to talk like that. It's downright sinful. Means o' gracel a bathtub! Well, I never!"

The ladies of the Aid Society were already convened in Mrs. Dix's front parlor, a large square room, filled with the cool green light from a yard full of trees, whose deep-thrust roots defied the drought. Ellen Dix had just brought in a glass pitcher, its frosted sides proclaiming its cool contents, when the late comers arrived.

"Yes," Mrs. Dix was saying, "Miss Orr sent over a big piece of ice this morning and she squeezed out juice of I don't know how many lemons. Jim Dodge brought 'em here in the auto; and she told him to go around and gather up all the ladies that didn't have conveyances of their own."

"And that's how I came to be here," said Mrs. Mixer. "Our horse has gone lame."

"Well now, wa'n't that lovely?" crowed Mrs. Daggett, cooling her flushed face with slow sweeps of the big turkey-feather fan Mrs. Dix handed her. "Ain't she just the sweetest girl—always thinking of other folks! I never see anything like her."

A subtle expression of reserve crept over the faces of the attentive women. Mrs. Mixer tasted the contents of her glass critically.

"I don't know," she said dryly, as if the lemonade had failed to cool her parched throat, "that depends on how you look at it."

Mrs. Whittle gave vent to a cackle of rather discordant laughter.

"That's just what I was telling Abby on the way over," she said. "Once in a while you do run across a person that's bound to make a show of their money."

Mrs. Solomon Black, in a green and white sprigged muslin dress, her water-waves unusually crisp and conspicuous, bit off a length of thread with a meditative air.

"Well," said she, "that girl lived in my house, off an' on, for more than two months. I can't say as I think she's the kind that wants to show off."

Fifteen needles paused in their busy

activities, and twice as many eyes were focused upon Mrs. Solomon Black. That lady sustained the combined attack with studied calm. She even smiled, as she jerked her thread smartly through a breadth of red flannel.

"I s'pose you knew a lot more about her in the beginning than we did," said Mrs. Dodge, in a slightly offended tone.

"You must have known something about her, Phoebe," put in Mrs. Fulson. "I don't care what anybody says to the contrary, there's something queer in a young girl, like her, coming to a strange place, like Brookville, and doing all the things she's done. It ain't natural; and that's what I told the Judge when he was considering the new waterworks. There's a great deal of money to be made on water-works, the Judge says."

The eyes were now focused upon Mrs. Fulson.

"Well, I can tell you, she ain't looking to make money out of Brookville," said Abby Daggett, laying down her fan and taking an unfinished red flannel petticoat from the basket on the table. "Henry knows all about her plans, and he says it's the grandest idea! The water's going to be piped down from the mountain right to our doors—an' it'll be just as free as the Water of Life to anybody that'll take it."

"Yes; but who's going to pay for digging up the streets and putting 'em back?" piped up an anxious voice from a corner.

"We'd ought to, if she does the rest," said Mrs. Daggett; "but Henry says—"

"You can be mighty sure there's a come-back in it somewhere," was Mrs. Whittle's opinion. "The Deacon says he don't know whether to vote for it or not. We'll have rain before long; and these droughts don't come every summer."

Ellen Dix and Fanny Dodge were sitting outside on the porch. Both girls were sewing heart-shaped pieces of white cloth upon squares of turkey-red calico.

"Isn't it funny nobody seems to like her?" murmured Ellen, tossing her head. "I shouldn't be surprised if they wouldn't let her bring the water in, for all she says she'll pay for everything except putting it in the houses."

Fanny gazed at the white heart in the middle of the red square.

"It's awfully hard to sew these hearts on without puckering," she said.

"Fan," said Ellen cautiously, "does the minister go there much now?"

Fanny compressed her lips.

"I'm sure I don't know," she replied, her eyes and fingers busy with an unruly heart, which declined to adjust itself to requirements. "What are they going to do with this silly patchwork, anyway?"

"Make an autograph quilt for the minister's birthday; didn't you know?" Fanny dropped her unfinished work.

"I never heard of anything so silly!" she said sharply.

"Everybody is to write their names in pencil on these hearts," pursued Ellen mischievously; "then they're to be done in tracing stitch in red cotton. In the middle of the quilt is to be a big white square, with a large red heart in it; that's supposed to be Wesley Elliot's. It's to have his monogram in stuffed letters, in the middle of it. Lois Daggett's doing that now. I think it's a lovely idea—so romantic, you know."

Fanny did not appear to be listening; her pretty white forehead wore a frowning look.

"Ellen," she said abruptly, "do you ever see anything of Jim nowadays?"

"Oh! so you thought you'd pay me back, did you?" cried Ellen angrily. "I never said I cared a rap for Jim Dodge; but you told me a whole lot about Wesley Elliot; don't you remember that night we walked home from the fair, and you—"

Fanny suddenly put her hand over her friend's.

"Please don't talk so loud, Ellen; somebody will be sure to hear. I'd forgotten what you said—truly, I had. But Jim—"

"Well?" interrogated Ellen impatiently, arching her slender black brows.

"Let's walk down in the orchard," proposed Fanny. "Somebody else can work on these silly old hearts, if they want to. My needle sticks so I can't sew, anyway."

"I've got to help mother cut the cake, in a minute," objected Ellen.

But she stepped down on the parched grass and the two friends were soon strolling among the fallen fruit of a big sweet apple tree behind the house, their arms twined about each other's waists, their pretty heads bent close together.

(To be continued.)

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\$45 Model

This is a large size cabinet phonograph for the price, being equal to those selling for \$10 higher.

We are able to offer this value because we make our "Phonolas" complete in our own factories and save middlemen's profits and duty.

Go and hear this Model B Phonola. You'll be charmed with its full, clear tone—its volume will surprise you.

The motor is quiet, smooth-running and winds up easily. The cabinet is beautifully finished, and like all other Phonolas, Model B plays all makes of disc records.

Other Phonolas from \$18 to \$250

DEALERS are advised to secure any unopen territory at once as the Phonola agency is becoming more valuable and harder to secure. Write for our proposition.

The Pollock Manufacturing Co., Limited
Kitchener, Canada.

We want to place a copy of our new FURNITURE CATALOGUE in the Home of Every Reader

It shows you how to furnish your home—gives you a full description and illustration of each article, and tells you how to buy on EASY TERMS of payment.

There's a copy for you = write for it to-day

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Dept. C
Queen Street West, Toronto, Ont.

CURE YOUR OWN SKIN TROUBLES AT HOME.

You are safe with any of our preparations. We have either cured or improved the skin, scalp, and complexion of many thousands from coast to coast during the last twenty-five years. If you are afflicted with Pimples, Blackheads, Roughness or Undue Redness of Skin, Wrinkles, Crow's Feet, Falling or Grey Hair, you should get our preparations without any further injurious delay. Sent to any address on receipt of price.

Princess Skin Food	\$1.50
Hiscott Hair Rejuvenator	1.00
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We have other valuable preparations described in our Booklet "F" SENT FREE ON REQUEST

Superfluous Hair Permanently Removed

Those suffering from the affliction of hairy growth on lips, face, neck or arms should arrange for treatments by the scientific process of Electrolysis. 25 years of success.

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A GOOD HOG FEED

that contains a finely-balanced assortment of food essentials in an easily digested and concentrated form—Carbo Hydrates over 45%, Protein 17%, Fat 10%. Such is

PREDIGEST CONCENTRATED HOG FEED

Send for a sample order to-day—try it on some of your pigs and compare their growth with others fed on ordinary feeds. PREDIGEST should be mixed with other feeds in the proportion of about $\frac{1}{4}$ PREDIGEST, $\frac{3}{4}$ regular feed.

Put up in 100-lb. bags. Price \$3.00 per bag, f.o.b. Toronto. Send to-day.

Prepared only by

THE PREDIGEST FOOD CO., Limited
259 King St. W., Toronto

FIRST PRIZE O. A. C. No. 72 OATS
In Field Crop Competition

The kind you need if wishing to enter in same. Also some O. A. C. No. 21 Barley; both grown from registered seeds, and are true to name. A few bushels of Pearce's Imp. Tree Bean, Small Field Beans, Alsike and Sweet Clover. Samples and prices on request.

OSCAR KLOPP, SEED GROWER
Zurich, Huron County, Ontario

"1900" Gravity Washer

Sent free for one month's trial. Write for particulars.

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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.

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made in Canada—used in thousands of Canadian homes—and is generally acknowledged to be "Canada's Biggest Piano Value."

Write Dept. 18 for free catalogue "L."

THE SHERLOCK-MANNING PIANO CO.
London (No street address necessary) Canada.

30c. for Chickens
25c. for Old Hens

Above Prices Paid by

Waller's, 702 Spadina Ave., Toronto
Write for Price List

POULTRY BARGAIN SALE

Breeding pens or single birds, S.-C. Buff, Brown, and White Leghorns; Buff and White Orpingtons; S.-C. and R.-C. Rhode Island Red; White, Silver, and Golden faced Wyandotters; Silver Crested Polands; S.-C. Anonas; White and Bred P. Rocks. Hens two and three dollars each. Cocks and Cockerels three and two dollars each. Eggs from the above breeds, in season, two and three dollars per fifty. The Idlewild Poultry Yards, Burlington, Ont. C. F. Coleman, Proprietor.

Wanted--Porous Tile

Ten inches diameter. Quote prices to **SANDY BAY FARM, ROSSEAU**, Ontario, District of Parry Sound.

O. A. C. No. 72 OATS

For sale—4 tons seed oats, pure and clean, 1925 winner, first name in competition. Price \$1.25 per bushel. Sacks free.

E. BRODRICK, R. R. 1, EXETER ONE.

PRIVET, BARRIBERRY, CEDARS, SPRUCE, Pine, Cocks, Chestnut, W. G. M. Mower and Hedges, White necks, English. All in season, practically dozen, some variety, one dollar, high bush, two dollars. List free.

JOHN DOWNHAM, STRATHROY, ONTARIO

Gossip.

Perth Consignment Holstein Sale.

We draw the attention of our readers to the advertisement in this issue of the Perth Breeders' Consignment Sale of 50 Holsteins, the sale to be held in the City of Stratford, on Wednesday, March 13. This offering contains a number of Record of Merit and Record of Performance cows, most of which will be fresh about the time of the sale, and the calves sired by some of the leading bulls of the breed in this country. Altogether, 42 females and 8 bulls will be sold subject to inspection. If interested, write Adam C. Park, Secretary, Listowel, Ontario, or W. M. Arbogast, President, Sebringville, Ont., for a catalogue and full descriptions. In writing be sure and mention "The Farmer's Advocate".

Sherrick Bros. Holstein Sale.

As announced in an advertisement elsewhere in this issue, Sherrick Bros., of Bethesda, Ont., will disperse their entire Springbrook herd of Holsteins on Thursday, March 7, when 35 head consisting of 28 high-record females and 7 bulls, including the herd sire, will go to the highest bidder. Inka Sylvia Bos, a brother of the great May Echo Sylvia, the 41-lb. R. O. M. cow, and also brother of Lawncrest May Echo Posch, a 33.78-lb. R. O. M. cow, is the herd sire to be sold. The young things to be offered are by him. One of the young bulls is out of an 18-lb. senior yearling, and sired by Johanna Hengerveld Segis, a son of the intensely bred Sir Lyons Hengerveld Segis. A number in the offering are daughters of the great bulls named and are bred to Korndyke Geiske Raymondale, a bull sired by a son of May Echo Sylvia and out of a 25.27-lb. two-year-old. Practically all of the females in milk are in the R. O. M. Individually, the offering is made up of cattle of high type and in good condition. Don't forget the date—March 7—and the place, Bethesda, Ontario, reached from Gormley Station, C. N. R., or from Stouffville, G. T. R. Write for catalogue and mention The Farmer's Advocate.

R. M. Holtby, Manchester, writes:

During the month of January we have sold to Frank J. Dobson, of Uxbridge, the 28-lb. bull, "Sidney Korndyke". He is a bull of good individuality and with his dam's record should make him a valuable sire. To E. H. M. Sproule of Westbrook, Ont., the good bull, "Duplicate", a son of "King Segis Pontiac Duplicate". To Jos. Pecl of Port Perry, the calf, "Gipsy Pontiac Cornucopia" for the nice sum of \$800.00. To date this is the best bull we have ever sold; his dam is the nearly 31-lb. cow, "Gipsy Queen Rhoda", a cow without a fault, while his sire is "May Sylvia Pontiac Cornucopia", a grandson of the World's record cow, "K. P. Pontiac Lass". He and "May Echo Sylvia". The records of his dam and two grandams average 38.4 lbs. butter in 7 days. He is one of the best individual bulls we have ever raised and with his breeding should make his owner a very valuable sire. He traces twice to "King of the Patrias" (the greatest tested sire of the breed) through his best son and his best daughter, while on his dam's side he is closely related to "Early Waddout Berie", the world's record cow. To A. P. Donaldson of Lang, Ont., the bull, "Duplicate Segis Kuroki", also a son of that great sire, "King Segis Pontiac Duplicate", while his dam is the R. O. M. and R. O. P. cow, "Sadie Dekol Lane". To B. S. Ingram, Hillhurst, Ont., 3 cows and one better freshening in March. They are as good individuals as we have in the herd and should make a foundation for a herd of great quality as well as production. One is a daughter of "King Segis Pontiac Duplicate", one a daughter of "King Lass Segis Chorbilde", the daughter to the 30-lb. cow, while the other is a sister to the 30-lb. cow, "John Koxes". She will show a cow and the better as her daughter. This is a nice bunch of sales to start the New Year with and shows the Holstein cow still gaining in popularity in spite of scarcity of labor.

TIME AND LABOR SAVED MEANS MONEY EARNED

Every minute counts on the farm these days. More money could be earned if the days were longer. One way to spend more time on profitable work is to spend less on drudgery. Washing is very necessary, but it's drudgery just the same. It can be reduced to almost nothing, however, with the

PATRIOT

Spiral Cut Gear Hand Washing Machine



The Patriot is made by a firm that has been making washing machines for 32 years and the Patriot is their best hand washing machine. The Patriot is convenient, durable and easy to operate. It has a high speed, Ball Bearings and Cut Gears.

Ask your dealer to show you the Patriot or write to us for descriptive folder.

Dowswell, Lees & Co., Limited
Hamilton, Ontario



ROYAL PURPLE
POULTRY SPECIFIC

Big Egg Yield

Royal Purple Poultry Specific is a great egg producer and poultry conditioner. It makes hens lay in the winter almost as well as they do in summer. This is because our Poultry Specific supplies the missing food elements that fowl need in their winter ration and without which they cannot lay. Royal Purple Poultry Specific tones up the digestive system, and keeps the fowl active and healthy. It should be fed daily in a hot or cold mash.

Royal Purple Poultry Specific

has pleased thousands of farmers and poultrymen. It has enabled them to get winter eggs without trouble. Read the views of the following users:

Fred E. Bond, Kincardine, Ont., writes:
"I have been feeding Royal Purple Poultry Specific to my hens this winter and I find it beats anything I have ever used as an egg producer. They started to lay right away and kept on gaining. I will never feed anything else as long as I can get it."

T. W. Hale, Toronto Annex, writes:
"I have fed your Specific to poultry, and it is a valuable tonic; increases the production of eggs. Would not be without it; keeps them in good health and I recommend it highly. Any person trying it once will not be without it."
If you want more eggs and healthier fowl, feed Royal Purple Poultry Specific. It is sold in large and small packages.
Ask our dealer in your town for it.

Made only by
W. A. Jenkins Mfg. Co., Limited
London, Canada

FREE BOOK
This 80-page book describes the common diseases of poultry and stock. It tells how to build and remodel poultry houses, etc., etc. Send for a copy.

When writing advertisers will you kindly mention The Farmer's Advocate.

Belleville Dis

There were a tendance at a Belleville Hol Club. Problem were discusse transacted. T a sale on April that a large animals will be of the club is Pres. C. Foster of Frankford manager.

J. E. Dodge Lowell, Mass., "On Januar at Hood Farm lieve has the of any bull ca Sophie 19th Champion Lo years' authenti 6,597 lbs. 80 pe "The sire of son. His dam Jersey Jr., th Lass 66th of H ion Senior three dams to this ro yearly auth 17,082.2lbs. n lbs. butter 80 has a bull with we would like 19th of Hood as she looks at we expect her lbs. butter thi

Feb. 21, 1911 Ont.—Holstein Feb. 22, 1911 wood, Ont.—J Feb. 23, 1911 lin, Ont.—Sho Feb. 26, 1911 ford, Ont.—Sh Jerseys, etc. Feb. 27, 1911 port, Ont.—H March 5, 1911 Mossley, Ont. March 5, 1911 Sons, Harley, L. H. & B.— March 5, 1911 Lanark, Scotla March 6, 1911 Club.—Pure-b March 6, 1911 stock, Ont.—F March 7, 1911 ville, Ont.—S March 7, 1911 esda.—Holstei March 8, 1911 O. Coon, Totte horns. March 11, 1911 stock, Ont.—J March 12, 1911 Sons, R. I. Ay March 13, 1911 ers' Club, Stra March 13, 1911 mer, Ont.—F March 14, 1911 stein Breeders Holsteins. March 15, 1911 Norwich, Ont. March 19, 1911 Tavistock, H March 20, 1911 Owen Sound, O March 20, 1911 stein Breeders Woodstock, O March 21, 1911 R. 2, Guelph, Ewe Lambs, F March 26, 1911 Farm, Ste. An shires, Holstei March 27, 1911 Ayrshire Bree March 28, 1911 wood, Ont.—H April 2, 1911 Breeder's Club ford, Ont.—H April 2, 1911 ment Sale Co horns. April 3, 1911 steins Breeders Belleville, Ont.

Gossip.

Belleville District Holstein Breeders' Club.

There were about seventy-five in attendance at a recent meeting of the Belleville Holstein District Breeders' Club. Problems of interest to breeders were discussed and regular business transacted. The meeting decided to hold a sale on April 3 at which it is expected that a large number of high-quality animals will be consigned. The president of the club is W. Mabee, Woller, Vice-Pres. C. Foster, Bloomfield. R. Mallory of Frankford is secretary and sales manager.

J. E. Dodge, Manager of Hood Farm, Lowell, Mass., writes:

"On January 20th there was dropped at Hood Farm, a bull calf which we believe has the richest butter inheritance of any bull calf ever born. His dam is Sophie 19th of Hood Farm, World's Champion Long Distance cow, seven years' authenticated tests 91,866 lbs. milk, 6,597 lbs. 80 per cent. butter.

"The sire of the calf is Sophie's Bertha's son. His dam is the World's Champion Jersey Jr., three-year-old, her dam is Lass 66th of Hood Farm, World's Champion Senior three-year-old. The five nearest dams to this royally bred youngster, have yearly authenticated tests averaging 17,082.2 lbs. milk, 947.9 lbs. fat, 1,184.3 lbs. butter 80 per cent. fat. If anyone has a bull with a richer butter inheritance we would like to hear from them. Sophie 19th of Hood Farm is again on test and as she looks and acts like a four-year-old, we expect her to again make over 1,000 lbs. butter this year."

Sale Dates.

- Feb. 21, 1918.—Wm. A. Rife, Hespeler, Ont.—Holsteins.
- Feb. 22, 1918.—F. L. Green, Greenwood, Ont.—Jerseys.
- Feb. 23, 1918.—W. A. Dryden, Brooklin, Ont.—Shorthorns.
- Feb. 26, 1918.—J. Lloyd-Jones, Burford, Ont.—Shropshires, Southdowns and Jerseys, etc.
- Feb. 27, 1918.—Henry Knell, Bridgeport, Ont.—Holsteins.
- March 5, 1918.—W. W. George, R. 2, Mossley, Ont.—Holsteins.
- March 5, 1918.—E. C. Chambers & Sons, Harley, G. T. R. or Scotland, Ont., L. H. & B.—Holsteins.
- March 5, 1918.—Montgomery Bros., Lanark, Scotland.—Clydesdales.
- March 6, 1918.—Guelph Fat Stock Club.—Pure-breds; J. M. Duff, Secretary.
- March 6, 1918.—G. F. Mahon, Woodstock, Ont.—Holsteins.
- March 7, 1918.—L. K. Weber, Hawkesville, Ont.—Shorthorns.
- March 7, 1918.—Sherrick Bros.—Bethesda.—Holsteins.
- March 8, 1918.—W. J. Wray and W. O. Coon, Tottenham, Ont.—Scotch Shorthorns.
- March 11, 1918.—D. A. Boyle, Woodstock, Ont.—Jerseys.
- March 12, 1918.—J. M. Van Patter & Sons, R. 1, Aylmer, Ont.—Holsteins.
- March 13, 1918.—Perth District Breeders' Club, Stratford, Ont.
- March 13, 1918.—Laidlaw Bros., Aylmer, Ont.—Holsteins.
- March 14, 1918.—London District Holstein Breeders' Club, London, Ont.—Holsteins.
- March 15, 1918.—H. Clark Hanmer, Norwich, Ont.—Holsteins.
- March 19, 1918.—Noah S. Bender, Tavistock. Holsteins.
- March 20, 1918.—Thos. McNea, R. 6, Owen Sound, Ont.—Holsteins.
- March 20, 1918.—Oxford District Holstein Breeders' Club Consignment Sale, Woodstock, Ont.—Holsteins.
- March 21, 1918.—Henry Arkell & Son, R. 2, Guelph, Ont.—Oxford Ewes and Ewe Lambs, Horses, Implements, etc.
- March 26, 1918.—Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.—Ayrshires, Holsteins, Clydesdales.
- March 27, 1918.—Southern Counties Ayrshire Breeders.
- March 28, 1918.—G. A. Brethen, Norwood, Ont.—Holsteins.
- April 2, 1918.—Brant District Holstein Breeders' Club Consignment Sale, Brantford, Ont.—Holsteins.
- April 2 and 3, 1918.—Ontario Consignment Sale Company, London.—Shorthorns.
- April 3, 1918.—Belleville District Holsteins Breeders' Club Consignment Sale, Belleville, Ont.—Holsteins.

The Quaker's Stock Farm
ENTIRE DISPERSION SALE OF
50—Pure-Bred Holstein-Friesian Cattle—50

<p style="text-align: center;">FEMALES</p> <p style="text-align: center;">FORTY OR MORE, INCLUDING</p> <p>Shadelawn Cynthia Canary, 4 years, milk 604.7 lbs.; butter, 2.37 lbs.</p> <p>Maud Beets Segel, butter, 23.80 lbs.</p> <p>Bella A. Posch, butter, 19.45 lbs.</p> <p>Roxie Fayne, 3 years, butter, 19.87 lbs.</p> <p>Mercena Schuiling 5th, 3 years, butter, 19.71 lbs.</p> <p>Colantha Mercedes Tehee, 2 yrs., butter, 12.77 lbs.</p> <p>The Quakeress, 1 year 11 months, butter 14.60 lbs.</p> <p>Many other fine foundation cows, tested and untested, and nearly all in shape for testing this spring.</p>	<p style="text-align: center;">ONE OF OXFORD'S FINEST HERDS</p> <p style="text-align: center;">A SALE WORTH WHILE</p> <p style="text-align: center;">— HEIFERS</p> <p>Some splendid heifers, freshening to the herd this fall, and a number of unbred yearlings.</p> <p style="text-align: center;">Splendid Foundation Stock</p>	<p style="text-align: center;">BULLS</p> <p>The young herd sire and show bull, 2 years old, COLANTHUS POSCH ABBEKERK, more white than black.</p> <p>Dam, milk, 7 days, 590.8 lbs.; butter, 28.07 lbs.</p> <p>Sire's dam, milk, 710 lbs.; butter, 31.95 lbs.</p> <p>Highest day's milk, 103.6 lbs.</p> <p>Average (dam and sire's dam) milk, 7 days, 650.04 lbs.; butter, 30.15 lbs.</p> <p style="text-align: center;">Blue Ribbon Bull at Guelph, 1916.</p> <p>Prize-winner at Toronto and London, 1917.</p> <p>Several young bulls, ready for service, all from R.O.M. dams. One prize-winner at Toronto, 1917.</p>
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DR. RUDD'S SALE STABLE
WOODSTOCK, WEDNESDAY, MARCH, 6, 1918

Convenient Train Service Terms: Cash or 6 months' credit with interest Good Hotel Accommodation

G. F. MAHON, Proprietor, WOODSTOCK, ONTARIO
MOORE & DEAN, AUCTIONEERS

Write for Catalogue



**Always
Crisp and
Delicious**

**Sold in
Different Sized
Packages**

**Made Under Our Own, More Exacting,
Pure Food Laws**

The purity and goodness of McCormick's Jersey Cream Sodas is assured by the careful selection of the very best materials; by the skill of our experts who bake them; by the perfect cleanliness and appliances

of our great, snow-white, sunshine factory; and finally, by the perfect protection of an air-tight, sealed package that excludes all dust and moisture. Ask your grocer.

McCormick's

JERSEY CREAM Sodas

SOLD FRESH EVERYWHERE

EDWARDSBURG

GLUTEN FEED

The feed that means more milk and richer milk. Write for prices.

The Canada Starch Co. Ltd. Fort William Brantford

Guaranteed
23% PROTEIN

LLENROC STOCK FARM

On the Boulevard of the Beautiful Niagara River

We offer a fine cow, 12 years of age, and from a 29-lb. cow; also a young bull from Sir Veeman Hengerveld and from a 45-lb. 2 1/2 year old, who is a granddaughter of Diana Komosa. Price \$100.00. Write for prices and pedigree. Address—

W. C. HOUCK. R. R. No. 1, CHIPPAWA, ONTARIO

A Sale That Will Interest You.

A sale of interest to Farmer's Advocate readers is that of Thos. M. McNea, R. R. 6, Owen Sound, and advertised in this issue. There will be sold 19 pure-bred Holstein females in calf to Ormsby Korndyke Pontiac, and a number of calves from the great sire Correct Change. A few heifers sired by that grand bull, Sir Lyons Hengerveld, will be sold. This stock is bred in the purple and they are producers. One of them as a two-year-old gave 12,889.17 lbs. of milk testing 4 per cent. fat. Thirty, high-class grade cows, all heavy producers, will be sold. All these cows have won their place in the herd by their records. Remember the date of the sale—March 20. G. T. R. and C. P. R. trains met at Owen Sound day of sale.

Breeders' Sale at the Stock Yards.

Elsewhere in this issue appears an advertisement of a sale to be held at the Union Stock Yards, Toronto. The dates are given March 4 and 5. After this was in type the management decided to hold the sale Tuesday, March 5, only.

MASSEY-HARRIS PLOWS

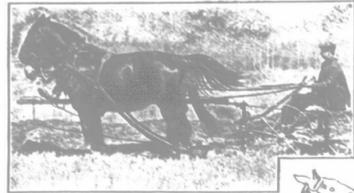
Are Backed by an Experience of over 56 years

You take no chances when you buy a Massey-Harris Plow—It has stood the test of time.

Made in Canada, in one of the best equipped Plow Factories in the world, and in a great variety of styles to meet various conditions.

They are light draft and easy to handle—they are popular with both man and beast.

They turn perfect furrows, putting the ground in the best possible condition for the work which follows.



MASSEY-HARRIS CO., Limited.
Head Offices—Toronto, Canada.

BRANCHES—Montreal, Moncton, Winnipeg, Regina, Saskatoon, Swift Current, Yorkton, Calgary, Edmonton. —Agencies Everywhere—

A WARNING To "Victory Bond" Owners

Do not under any consideration part with your Victory Bonds at less than their market value. They are one of the premier securities of the world. The security behind them consists of every square inch of territory, every railway, factory, every farm and building—everything in Canada from coast to coast.

If through force of circumstances or for other reasons you have to sell, remember there are many people who realize the investment value of Victory Bonds at their present market price, and are desirous of adding to their holdings.

Certain private individuals may try to persuade you to part with your Victory Bonds at less than their true market value. Instances of this nature have recently come to light. These individuals are unscrupulous. They have only their own selfish ends in view.

It is one of the functions of the members of the Montreal Stock Exchange to provide a central market where all who wish to buy or sell Victory Bonds or other securities, may come and be assured of dealing at the current market price.

Victory Bonds have a known value.

If you want to add to your holdings of Victory Bonds, or desire to invest money in other securities, any member of the Montreal Stock Exchange will be pleased to give you complete and reliable information.

Write to-day to the Secretary of the Montreal Stock Exchange. It places you under no obligation. Use the form below provided for the purpose.



MONTREAL STOCK EXCHANGE

To the Secretary of the Montreal Stock Exchange, Room 502, Montreal Stock Exchange Building, Montreal. Without obligation, please send me your Book on Investing, also information regarding the market value of Victory Bonds.

Name _____
Address _____

Gossip.

The North Star Holstein Offering.

Holstein breeders who are in search of a young bull of Royal breeding to head their herds should note those advertised elsewhere in this issue by the North Star Stock Farm, Brockville, Ont. The four calves mentioned that are of serviceable age are grandsons of the great Rag Apple Korndyke 8th, that Mr. Cabana, of Pine Grove Farms, Elmira Centre, N. Y., advertises as "the greatest bull in the world". On the dam's side, the records of these bulls run as high as 31.31 lbs. of butter and 704 lbs. of milk for 7 days. There is also one 9 months bull got by a grandson of the world's record cow, May Echo Sylvia, and out of a 29-lb. daughter of a 31 lb. cow. As seen recently by a representative of this paper, every bull advertised is a splendid individual and like all of Mr. Stewart's stuff are exceedingly well grown, which should always be a strong factor in deciding on a head sire. Extended pedigrees of each bull will be sent on request. Address, J. W. Stewart, North Star Stock Farm, Lyn, Ont.

Hill-Crest Holstein Dispersal.

Readers will notice the advertisement elsewhere in this issue of the Hill-Crest Holstein sale. This noted herd is to be dispersed on March 28, and the proprietor writes about them as follows: "Having sold our farm, and preparing to remove to a new one with no room available at present for a milking herd, we have decided to dispose of our entire herd of Holsteins by auction, retaining only a few heifer calves by the stock bull

IMPORTANT SALE OF HOLSTEINS

will be held at Owen Sound

WEDNESDAY, MARCH 20, 1918

consisting of 19 Pure-bred Holstein cows bred and in calf to Ormsby Korndyke Pontiac, also calves from "Correct Change", one of the best bulls in Canada, also a number of heifers from the great Toronto Sire, the bull, Sir Lyons Hengerveld 8th. One cow gave as a two-year-old R.O.P. 12,889.15 lbs. milk, testing 4% butter fat. There will also be sold 30 high-class, grade cows, all heavy producers. There are no heifer calves in this herd, no bulls have been kept and where a cow showed a pregnant she was immediately wooded out. In this sale also will be offered one Empire Milking Machine as good as new, also one Clydesdale Filly, three years old.

Terms: 40 months' credit on most notes at 6% rate. C.P.R. 11 days due 1.05, G.E.R. 11 days due 1.15. These trains will be met on days of sale. Farm 1 mile from Owen Sound Market on Carleton Place. For further information regarding this sale write

THOS McNEA, Proprietor, R. R. No. 6, Owen Sound, Ontario

107-ACRE FARM—\$8,000

With ten acres of good bush, beech, maple. Town of Brampton, 1,000 people, 5 miles; school, 1.5 miles; 90 acres workable soil, clay loam; good water—two wells; full packing house, everything in place; spring. Solid brick house, 6 rooms; brick kitchen; good cellar; bank barn, 8x34; good stabling—5 horses; 40 head of cattle; 210x8 stalls; and eight pens; 12 large sheds, 30x20; hen house, 15x25; silo; cow barn; and garage. Fourteen acres of 25 miles. Owner going West this spring, and will sell for \$1,000 less than it could be bought a month ago. \$4,000 down, balance on credit. Details on page 1, parcel No. 2, in Willoughby's New Spring Catalogue, 200 pages, for sale, copy 1.00.

The Willoughby Farm Agency, Dept. 400, Georgetown and Guelph, Ont.

as a foundation for a future herd. Breeders acquainted with the sires that have been used on the Hill-Crest herd from the beginning fully realize the inheritance of producing blood they have given to its members. Pontiac Hermes, a son of the great Hengerveld DeKol with 115 A. R. O. daughters, May Echo Champion, only full brother of the great May Echo Sylvia, the greatest milk producer the world has ever known, and Hillcrest Ormsby DeKol, son of our 29,000-lb. cow, Rauverd, have proven a trio of producing sires that few herds anywhere have been fortunate enough to own. Later we intend to give illustrations and individual records of the daughters we have of these great bulls, but we draw attention now to the fact that the official records of the Holstein Association show all females in the herd officially tested for seven days as three-year-olds and up, with the nice average of something over 28.35 pounds of butter, the three-year-olds averaging over 90 pounds milk and the four-year-olds something over 101 pounds of milk in the best day. The average for the whole herd, including two-year-old heifers with first calves is over 88 pounds per day, official test. It has always been our aim to breed Holsteins good to look at as well as good at the pail, and we believe no Canadian Holstein sale has ever offered more in breeding, production, or individuality. In order that every Holstein breeder East and West may attend this sale with least possible waste of time and to give the very best sale accommodation we are moving the herd to the Union Stock Yards, Toronto, where we hope to meet our old customers and many breeders of the Black and Whites.

Write G. A. Brethen, Norwood, for catalogue and full particulars. Mention The Farmer's Advocate.

Artificial DUTY and other Erickson Artificial

It is not necessary will made. Bax Legal tioners, 35 simple full will to guid O. A. C O. A. which are the varieties now grown on choice clean and true per bushel. JOHN ELDER



5¢ Your mo as 3% if yo the Stand Our book ings, tells y Write no STANDARD 82-88 K



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of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

Dr. Bell's Veterinary Medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.
Dr. Bell, V. S., Kingston, Ont.

CLYDESDALE STALLIONS FOR SALE
Royal Marquis [12063] foaled 1908, sire, Moncreiff Marquis [6735] (9955); passed in Form 1 and has proved himself a good stock horse and sure foal-getter. Will be priced right. For particulars apply to B. D. Turnbull, Branchton, Ont.

For Sale The imp. Clydesdale stallion, Pride of New Mills, 9589, foaled 1904. Enrolled on Form one; sire, Cassabianca, dam, Princess of Skuth, by Hansome Prince. This horse is a half brother to the well-known Baron Gartley. For further particulars write or phone: John McLucas, Hawkestone, Ont., Simcoe Co.

**SUNNY ACRES
ABERDEEN-ANGUS**

Bulls of serviceable age and females not akin.

WM. CHANNON & SON
P. O. and Phone - - Oakwood, Ont.
Stations—Lindsay, G.T.R. and C.P.R.

Alloway Lodge Stock Farm

Angus - Southdowns - Collies

SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward, 1st prize, Indiana State Fair.

Robt. McEwen, R. R. 4, London, Ont.

Kennelworth Farm Aberdeen-Angus

A grand lot of calves for sale; ages in the neighborhood of 7 months. Victor at Glencairn at head of herd.

PETER A. THOMPSON HILLSBURG, ONT.

ABERDEEN-ANGUS

Alonzo Matthews, Manager, Forest, Ontario.

H. Fraleigh, Proprietor, Forest, Ontario.

Plaster Hill Shorthorns

Two 2-year-old bulls, one yearling bull, one bull calf. Heavy milking families.

F. Martindale & Son, Caledonia, R.R. 3, Ont.

Gossip.

Irvinedale Shorthorns.

L. Watt and Son, of Flora, write that they have recently sold to A. M. Vandenberg, of Fonthill, a nice roan bull, a fifteen month-old son of Gairford Select, and four heifers to B. Currie of Florence. Mr. Currie purchased these for foundation stock. R. C. Cunningham of Flora, purchased a three-year-old cow, Lavender Gem 2nd, and her bull calf; also, a roan heifer, seven months old, out of a daughter of Gairford Marquis. They report that they have four granddaughters of Right Sort left, and that they are priced for quick sale owing to shortage of room.

Fairview Herds and Flocks.

Visitors who have been so fortunate as to spend a day at Fairview Farm, the property of Robert Duff & Son, of Myrtle, Ont., during the past few years have on every occasion seen something in the way of Clydesdale horses and Shorthorn cattle that was well worth while. It would not be possible to find an off day at "Fairview". No matter whether the cattle or horses were, or were not, being prepared for Toronto, they would be worthy representatives of their respective breeds, and would also be brought out in the pink of condition. The same is also true of the farm in all of its branches. Neatness and order reign supreme in all divisions, and this, no doubt is, in part, responsible for the success of the breeding operations throughout. Speaking of the Clydesdales many readers of these columns will recall the successful series of winnings of Mr. Duff's home-bred entries as announced in both our Toronto and London show reports. From the two-year-old filly, Sallie Roxboro, which was good enough to compete for championship honors at Toronto, London and Guelph, down to the pair of big first-prize geldings, quality and style predominate. Size has not been sacrificed. The mare mentioned above gained her place amongst strong company at every show, and notwithstanding all her quality of under-pinning she is fast developing into a wonderfully thick, big, deep-bodied mare. She is got by Royal Frieland Imp., and her dam was by the good-breeding horse, Prince of Roxburgh Imp. The several good youngsters from this stable at the shows last fall have also done well since going into the stables. Mendel Princess, the two-year-old imported filly by Mendel, which stood second to the champion filly Mendel Queen at both Toronto and London, has grown considerably and will without doubt be a feature of the 1918 shows; while a yearling filly and a horse foal by the great Lord Gleniffer Imp., are just about the best pair of youngsters we have seen for some time. The yearling filly mentioned was first prize filly last fall at both Toronto and London. We would like to mention the dams of these youngsters, nearly all of which are still in the stud, but the few lines which follow must be given over to the Shorthorns. At present the Fairview herd numbers around 40 head, and the Princess Royal bull, Princess 10945 is the chief sire in service. He is a big, thick, choice bull, just turned two years and a grandson of Superb Sultan. As yet it is perhaps a little soon to prophesy as to his worth as a sire, but his first half dozen calves, now in the stables are not only uniform but uniformly good. There will be five two-year-old daughters of the former stock bull, Augusta Fairview that are bred to the present sire. As Augusta Fairview was by the Duthie-bred Missie bull, Primrose Monarch, as well as a show bull of note, the quality of the calves these heifers are carrying should be assured. In going over the pedigrees of the breeding cows in the herd there is much that is pleasing. The Lavenders are represented by five daughters and granddaughters of Lavender Gem, a son of Benholm Butterfly imp. The Augustas are descended from Augusta Queen by Clipper King. The Duchess of Glosters all trace to Gloster 12th imp. by Champion of England. The Missies, Miss Ramsdens and Red Rose families all have two or three representatives, each making up as select a lot of breeding females as we have seen in any herd of equal size for some time, and in addition to the Shorthorns and Clydesdales at Fairview there is also a Shropshire flock that is well worthy of note.

MORE WORK FROM YOUR HORSES

Heavy spring work takes the surplus flesh from the horse. His collar no longer fits. His neck and shoulders chafe and gall. He can't do his full share of work and you lose money. Prevent these evils by using TAPATCO Pads.

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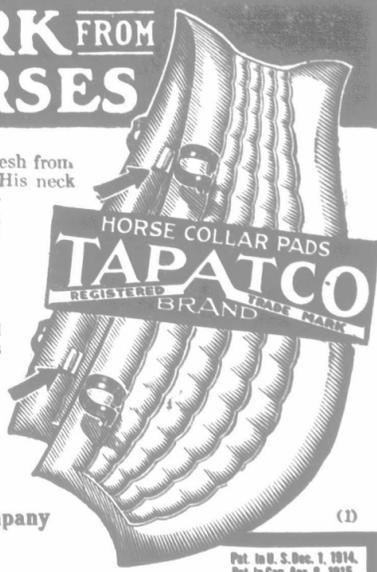
Consisting of wire staple, reinforced with felt washer (note where arrows point). This gives the hook a better hold and prevents pulling off. The weakest point is made strong and life of pad greatly lengthened.

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HORSES

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Dundas St. Cars to Keele St., W. Toronto - Auction Sales every Wednesday - Private Sales Daily

**OUR GREAT ANNUAL COMBINATION BREEDERS' SALE
Clydesdale and Percheron Mares and Stallions**

MARCH 4th AND 5th

Only entries of registered animals will be received for this great sale, which will include mares in foal, as well as yearling, two and three-year old fillies, matured and young stallions, both imported and registered Canadian-bred stock. Entries will close Feb. 15th, and catalogues will be published at that time. For Entry Forms, Catalogues and all information, address:—

Walter Harland Smith, Manager Horse Department, Union Stock Yards of Toronto, Limited

Imported and Canadian Bred Clydesdales

COLUMBUS STABLES

We have on hand at present one of the strongest selections of imported and Canadian bred stallions we have had in the stables in years. A strong combination of size, quality and breeding. We also have 15 in-fal mares, all to the service of horses we are offering.

Smith & Richardson, Myrtle, C.P.R., Oshawa, C.N.R., Oshawa, G.T.R., Columbus, Ont.

Sundrum Clydesdales

Several choice imported and Canadian-bred mares, safe in foal. Also several prize-winning fillies and stallions, and a few show geldings, 2 and 3 years of age.

W. A. McNIVEN, R. R. No. 4, HAMILTON, ONTARIO

Aberdeen-Angus

We have a splendid selection of last spring's bull calves to offer, sired by our noted herd bulls and from our choice home-bred and imported cows. Inspection invited. Berkshire Boars and Sows.
LARKIN FARMS (MENTION FARMER'S ADVOCATE) QUEENSTON, ONTARIO

CLYDESDALES AND SHORTHORNS

I have on hand a number of real choice young mares and fillies. Eight excellent young bulls, from 9 to 12 months, of Right Sort and Royal Blood breeding; also a number of females. Inspection invited.
J. B. CALDER, R.R. 3, GLANFORD STATION, ONTARIO

BROOKDALE FARM HEREFORDS

Herd headed by Bonnie Ingleside 7th, the Canadian-bred Champion bull at Toronto, 1915. We have still several young bulls for sale; also some choice heifers, one sired by the head bull and safe in calf to the Champion bull at Ottawa. Also some open heifers from 1 year old up. A few cows with better calves by side and bred again, the three in one kind. W. Readhead, Brookdale Farm, Milton.

Canadian-bred Clydesdale Stallion.

5 years old, sure and broken to double and single harness, weight 1600 lbs., for price of a gelding. Write at once. Holstein bulls for sale. R. M. Holtby, R. R. 4, Port Perry, Ontario



Takes the "work" out of farmwork

An Alpha Gas Engine

AN Alpha will saw more wood in a day than you can saw by hand in a week.

- It will run a feed cutter, silo filler, or a thresher.
- It will pump water all day long without watching.
- It will run your cream separator, churn or washing machine.
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- Owning an Alpha is cheaper than hiring someone else's engine. The money you now have to pay out for engine hire when you need power and the greater amount of work you could do if you had an engine of your own would soon pay the cost of an Alpha.
- The Alpha is a simple, powerful engine that will give you more reliable service and cause you less trouble than any other engine you can buy. It's the kind of labor saver you need on your farm.

Ask for catalogue, prices and complete information. Made in twelve sizes, 1 1/2 to 28 H. P. Each furnished in stationary, semi-portable or portable style, and with hopper or tank-cooled cylinder.

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Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butter-Workers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER

UNRESERVED AUCTION SALE OF

32 Pure-Bred Scotch Shorthorns

18 Shorthorn Grades

The Property of L. K. Weber, Hawkesville, Ontario

Thursday, March 7, 1918

at one o'clock sharp.

Bull Rush (Imp.) the present herd sire, succeeded Highland Chief, a bull out of Nonpareil, Dahmy, Lord Lieutenant (Imp.) and Good Morning (Imp.) were former sires used on the herd. Females are regular breeders and trace to Sultana (Imp.) 31160. Many will freshen in April or early May. The young stock bulls and heifers are growthy and of good conformation. The continued use of imported blood indicates the quality of stock in the sale.

No Reserve as the Farm is Sold

Farm is three miles south of Wallenstein, C.P.R., Guelph and Goderich line; six miles north-west of St. Jacobs, G.T.R., Kitchener and Elmira Branch.

CATALOGUES ON APPLICATION TO

L. K. WEBER, HAWKESVILLE, ONTARIO

JOINT AUCTION SALE

SCOTCH AND SCOTCH TOPPED

Shorthorns & Yorkshire Swine

from the herds of W. J. Wray and W. O. Coon, to be sold at the farm of W. J. Wray, near Tottenham, on

Friday, March 8th, 1918

Consisting of 21 Females and 7 Males

mostly all of serviceable age. Many of the cows will have calves at foot to imp. Rosewood bull. Such sires have been in use as Waterloo Star, Cranright, Missie's King (imp.), Rosewood Duke (imp.). Families: Winsome, Beauty, Lady Laurier, Scotch Thistles, Lucy Neals, etc.

Terms:—Cash, or credit will be given for eight months at 6 per cent. Trains will be met at Tottenham, G.T.R., C.P.R., and Schomberg on electric car from North Toronto, morning of sale. Catalogues sent on request.

W. J. WRAY & W. O. COON, TOTTENHAM P.O.

Gossip.

E. C. Chambers' Holsteins.

If it is Holsteins bred in the purple that are wanted they can be secured at your own price at E. C. Chambers & Sons' dispersion sale on Tuesday, March 5. The herd is headed by King Segis of Forest Ridge 10th, whose two nearest dams each have over a 30-lb. butter record. Consignments from this herd have much the highest average at Brant County Holstein Club's consignment sales, and daughters from the highest priced cows are in the sale. All the breeding females will be fresh or springing at time of sale. In the offering are daughters, granddaughters and great granddaughters of the following noted animals: Pontiac Korndyke, Vikina Johanna, 39.43-lb. dam of the world's famous cow, Segis Fayne Johna 50.68 lbs.; Beauty Pietertje, 30.50 lbs.; Mary Jane DeKol, 30.03; Spotted Lady DeKol 27 lbs.; Maggie Mercena Abbekerk, 26 lbs., with a year's milk record of 21,000 lbs., and Bessie Netherland DeKol, ex-champion of Canada as a junior three-year-old. Seven of the heifer calves are from the 30-lb. bull. There are four daughters of a 26-lb. cow; a half-sister of Queen Butter Baroness, 33.17; a daughter of Maggie Clark whose milk record was over 21,000 lbs. as a mature cow; three granddaughters of Pontiac Korndyke; five daughters of Lord DeBoers; a 25-lb. four-year-old out of Bessie Netherland DeKol, ex-junior champion of Canada, in the herd; Forest Ridge Segis Bessie, a big, strong cow of fine quality has a 25-lb. record as a four-year-old and is now in condition for a 30-lb. record. At the time of writing three cows in the herd are milking about 80 pounds a day. In view of the fact that a yearling, 1917, recently supplied a 70-lb. milk, a six-year-old, on 309.2 lbs. milk, 22.16 lbs. fat with an average test of 7.48 per cent. In 41 days her milk was 1,916 lbs. and butter 34.41 lbs. with

Robert Miller, Stouffville, Ont.

still has a few Shorthorn bulls, fit for service, and some females that are as good as can be found for the man that wants to start right in Scotch Shorthorns. They will be sold for a low price, considering the quality, and the freight will be paid.

Write for anything in Shorthorns. One hour from Toronto

FAIRVIEW SHORTHORNS AND CLYDESDALES

In Shorthorns we can offer you a choice, from 60 head, including both bulls and females, of Lavender, Missie, Augusta, Duchess of Gloster, Village Girl, Miss Ramsden and Clara breeding—the best of cattle and the best of pedigrees. In Clydesdales, write for our list of winnings at Toronto, London and Guelph 1917 shows, Canadian-bred classes. We also have a nice offering in Shropshires.

ROBERT DUFF & SONS, Myrtle Station, C.P.R. and G.T.R. MYRTLE, ONTARIO

OAKLAND 60 SHORTHORNS

Present offering is 7 bulls from 10 to 20 months of age; also a few cows with calves at foot, all choicely bred dual-purpose animals, and priced below their value. Crown Jewel 42nd still heads this herd

JOHN ELDER & SONS, HENSALL, ONTARIO

SALEM SHORTHORNS

Herd headed by Gainford Marquis (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915, 1916. Can supply cattle, both sexes, at all times.

J. A. WATT, ELORA, ONTARIO

SHORTHORNS—T. L. Mercer, Markdale, Ont.

ROSEWOOD CHAMPION, by Nonpareil Archer, Imp., at the head of the herd. I have almost 100 Shorthorns in my stables at present. Marr Missies, Campbell-bred Clarets, Nonpareils, Minus, Rosemarv, etc.—the best of breeding and the best of cattle; bulls or females; also have a few Herefords

PURE SCOTCH SHORTHORNS

of exceptional merit. The young things we are offering this year are something extra, especially the bulls. Come and see them if you want something choice.

GEO GIER & SON, WALDEMAR, ONT

Blairgowrie Shorthorns and Shropshires

20 imported cattle, cows and heifers; all have calves at foot or are in calf to British service. Bulls for breeders wanting herd headers. Also home-bred bulls and females. Prices right. Rams and ewes in any numbers.

JOHN MILLER, Myrtle Station, C. P. R., G. T. R. ASHBURN, ONTARIO

FOR SALE

One pure-bred, well-bred Angus bull, 15 months old, a fine individual; one pure-bred Holstein bull 9 months old, well-bred, 2 months old, in excellent condition; also several other fine animals, quality considered.

Knights Lodge Farm, R. R. No. 1, Wilsonville, C. C. Kettle, Phone 330, Waterford.

PLEASANT VALLEY FARMS

Be the sires, New Newton Grand Champion and Belmont Beau. We have for sale a goodly number of pure-bred Scotch Shorthorn bulls and females, of the most excellent quality. Inspection invited.

Geo. Amos & Sons, C. P. R., 11 miles east of Guelph, Moffat, Ontario.

THE MANOR STOCK FARM—SHORTHORNS

Bulls all sold. Have Whipps, Rosemarv, Minus, Roan Ladys, etc., for inspection.

JOHN T. GIBSON DENFIELD, ONTARIO.

the best days milk 75.5 lbs. Her dam Millie Leigh Posch made 548.6 lbs. of milk with an average test of 3.67. Her best day's milk was 80.9 lbs. The results of careful selection and using of high-testing bulls are seen. Everything advertised will be sold. Remember the date is Tuesday, March 5. G. T. R. trains will be met at Harley on morning of sale. Parties going to the sale over the T. H. & B. get off at Scotland and those on L. E. & N. get off at Oakland and take bus to the hotel at Scotland from which rigs will leave at 11 a.m. for the farm. The sale will be held under cover. For further particulars see advertisement in next week's issue and write E. C. Chambers, Hatchley, R. R. 1, for a catalogue giving detailed description of the animals. Mention The Farmer's Advocate when writing.

G. F. Mahon's Holsteins.

Colanthus Posch Abbekerk, the sire at the head of "the Quaker's Herd" is an outstanding animal both in breeding and individuality. This bull is worthy of standing at the head of the largest and best herds. He stamps his character on his progeny. He can be purchased at G. F. Mahon's sale to be held in Woodstock, March 6. There are also four or five young bulls and over 40 females in the offering. Many of the females have been tested and their progeny are promising individuals. Keep the date in mind and write Mr. Mahon for a catalogue which gives a detailed description of each animal.

Marion was saying her prayers. "And please, God," she petitioned, "make Portland the capital of Maine." "Why, Marion!" said her shocked mother. "What made you say that?" Marion settled herself comfortably in the bed. "Cause I made it that way in my zamination paper," she said, "and I want it to be right."

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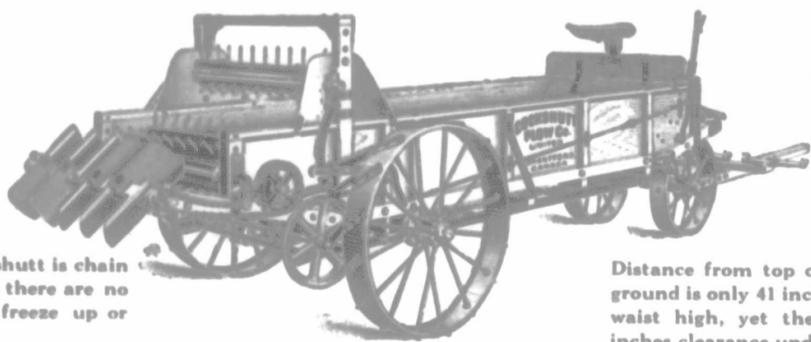
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R.R. No.

TH... Present on... dams, and... Could also... S. W. Jack

Spruce L

Herd head... Chief... heifers of... W. A. DOU



The Cockshutt is chain driven — there are no gears to freeze up or break.

Distance from top of box to ground is only 41 inches, just waist high, yet there is 17 inches clearance underneath.

Cockshutt Manure Spreader

Barnyard fertilizer is more than ever important now when so much production is wanted and commercial fertilizer is so scarce. Hence you want a manure spreader — one that will have ample strength to stand up under years of hard service — yet won't be heavy on the horses — and one that will really "spread," not merely dump the manure in patches. In other words, you want a Cockshutt Manure Spreader.

Built of malleable iron and steel wherever possible to save weight and add strength. The

drive is by chain—the strongest known. The bottom of the box is stationary, there are no slats, aprons or rollers to become fouled and broken; the carrier consists of heavy steel angles held together by chains—simple and effective.

The distributing cylinders and paddles pulverize and spread the manure better than you could do it by hand. Easy lever at driver's hand throws mechanism in or out of gear. In two sizes — 50 or 65 bushels.

Special Cockshutt Manure Spreader booklet gladly sent on request.

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Montreal, SMITH'S FALLS, Toronto

Annual Provincial Sale of Pure-Bred Stock

The Annual Provincial Sale of Pure-bred Shorthorn Cattle, males and females, under the auspices of the Ontario Department of Agriculture, and management of the Guelph Fat Stock Club, will be held in the Winter Fair Building, Guelph, on

Wednesday, March 6, 1918

Sale to commence at 12.30 P. M.

About sixty head will be offered, among them many fashionably bred animals contributed by well-known breeders.

For catalogues and other particulars apply to

C. L. Nelles, J. M. Duff,
President. Secretary.
Guelph, Ont.

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With a trial ton order we will send you, free, "The Veterinarian," a valuable book about the diseases of cattle.

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Toronto and Montreal

Dual-Purpose Shorthorns

Herd Headed by Dominator No. 106224

whose grandam on his mother's side has an R. O. P. record of 13,535 lbs. milk, testing 3.99, and whose dam has an R. O. P. record of 10,689 lbs. milk, testing 3.88. Cows heifers and young bulls for sale; some of the latter are out of cows in the herd which have given between 10,000 and 11,000 lbs of milk each in one lactation period.

WELDWOOD FARM
FARMER'S ADVOCATE, LONDON, ONTARIO

For Sale The following Scotch Shorthorns. 3-year-old Imp. Augustus bull, Augustine = 107804 =, two good cows with their calves and two heifers; also five bulls ready for service. Will be sold right away. Inspection invited. **John Senn & Son, Caledonia R. R. No. 3, Haldimand Co.**

Glenfoyle Dual-Purpose Shorthorns
Herd bull College Duke 4th, 95430, big, thick young cows and heifers for sale, 8 young bulls, some herd headers. Also a yearling Kyle stallion. **STEWART M. GRAHAM, LINDSAY, ONT.**

SPRING VALLEY SHORTHORNS

Herd of seventy head, straight Scotch, good individuals. Headed by the great show and breeding bull, Sea Gem's Pride 96365, and Nonpareil Ramsden 83422. We have for sale four as good young bulls as we ever had, and a few females. **KYLE BROS., Drumbo, Ont. (Phone and telegraph via Agr.)**

SEVENTY-THREE HEAD OF SHORTHORNS

Ten young bulls of serviceable age, Nonpareil Ramsden = 101081 =, and Royal Red Blood = 77521 =, at the head of the herd. The ten young bulls range in age from 8 to 15 months, and are for immediate sale. They are out of good dams which will bear inspection. Our cows and heifers will please, and you'll like the bulls. **JAMES McPHERSON & SONS, DUNDALK, ONTARIO.**

Imported SCOTCH SHORTHORNS

Our present offering includes 100 imported females and 12 young imported bulls, representing the most desirable lines of breeding. If interested come and see them. Burlington Jct., G. T. R. is only half mile from farm. **J. A. & H. M. PETTIT, FREEMAN, ONTARIO.**

ESCANA FARM SHORTHORNS

For Sale—2 herd-headers of serviceable age; one a Cruickshank Orange Blossom by Right Sort Imp. and one a Jilt, by Raphael (Imp.); also one good farmer's bull. Can also spare a half-dozen females. **J. F. MITCHELL, BURLINGTON, ONT. Farm, ¼ mile from Burlington Junction**

PURE SCOTCH SHORTHORN BULLS

Our present offering of young bulls, sired by our herd sire Broadhooks Star, a son of the great Newton Ringleader, Imp., are the best lot of bulls we ever had on the farm. Come and see them, or write for particulars. We also have females of the richest breeding and highest individuality. **GORDON SMITH Woodlee Sta., M. C. R., Essex County. SOUTH WOODLEE, ONT.**

Roycroft Farm Holstein-Friesians

Our 30-lb. bulls have all been sold, but we still have several sons of Pontiac Korndyke of Het Loo, that are just nearing serviceable age. Get one of these for your next herd sire, have a brother of Het Loo Pieterje, the world's greatest junior two-year old, at the head of your herd. We also have a 9-months, 27.78-lb. son of King Segis Alcartra; and one other, same age, by Dutchland Colantha Sir Mona. See them at once or write early.

W. L. SHAW - ROYCROFT FARM - NEWMARKET, ONTARIO.
Take Yonge Street Radial Cars from N. Toronto

HIGHLAND LAKE FARMS

Herd sire, AVONDALE PONTIAC ECHO, (under lease), a son of MAY ECHO SYLVIA, the world's record cow. Only one other 41-lb. bull in Canada.

We have young bulls for sale whose two nearest dams (both Canadian champions) average as high as 35.62 lbs. butter in seven days; another whose two nearest dams are both 100-lb. cows, and one ready for service, from a 41-lb. sire and an 18,000-lb. two-year-old dam. Send for our BOOK of BULLS. A few females for sale. Satisfaction guaranteed.

R. W. E. BURNABY, (Farm at Stop 55, Yonge St. Radial) JEFFERSON, ONT.

Hospital for Insane, Hamilton, Ont.

ONLY THREE BULLS LEFT

(1) A splendid fellow, more white than black, born May 1917. He is a grandson of Dutchland Sir Mona, and his dam is a half sister of the famous Toitilla of Riverside.

(2) Born September and December, 1917, of A. I. R.O.P. dams.

APPLY TO SUPERINTENDENT.

KING SEGIS WALKER'S DAUGHTERS

STILL MAKING LARGE RECORDS

If you want a young bull let me send you some photos and pedigrees. A few females left. **A. A. FAREWELL, OSHAWA, ONT.**

CLOVER BAR HOLSTEINS

We are now offering a number of young bulls, sired by our senior herd-header, Francy 3rd's Hartog 2nd, the noted son of the famous old Francy 3rd and Canary Mercedes Hartog; also a few females. **P. SMITH, Proprietor, R. R. 3, STRATFORD, ONT.**

More Honey is Wanted.

Sugar is an important war food, its price is high and there will probably be a shortage in the near future. Honey, the unequalled natural sweet that sugar cannot wholly replace, is being affected in sympathy. The unusually large crop of honey produced in Ontario, Quebec and Manitoba in 1916 was sold quickly at prices slightly above those of the previous season and present indications point to a still greater demand and higher prices for the new crop. Thus, by producing as much honey as possible this year, the beekeepers of Canada will not only increase their returns but will be helping the Empire. These remarks refer to extracted honey. An increased demand for comb honey cannot be predicted.

The appeal for greater production is especially to those who are neglecting their bees or are not managing them in the best manner. There are many apiaries in good locations for profitable honey production more particularly in Eastern Canada, where colonies in box hives or in seldom opened frame hives, now producing from 20 to 40 pounds of honey each, could be made to produce 80 to 100 pounds or more in an average season. If time cannot be spared to give the bees the attention they need, they might be handed to a member of the family who would take an interest in them, or they might be sold to a professional bee-keeper. But well managed bees often pay as well as, or better than, one's regular occupation for the amount of time spent with them. The different operations in modern apiary practices are briefly described in "Bees and How to Keep Them" (Experimental Farms Bulletin No. 26, Second Series) which may be obtained free on application, from the Publication Branch of the Department of Agriculture, Ottawa. A good way to become acquainted with the better methods of beekeeping is to arrange to attend one of the apiary demonstrations that will be held early in the summer, under the auspices of several of the Provincial Beekeepers' Associations. A list of the Beekeepers' Associations with the addresses of the Secretaries is given in the above mentioned bulletin.

Another class of beekeepers that may profit greatly at this time is the expert apiarist located in a good honey producing region, whose time is not fully occupied with the bees. His principal problem will be how to increase the number of bees to the fullest extent in time for the honey flow, so as to make the most of his valuable knowledge of bee management. The early replacing of unsatisfactory queens is important. Judicious feeding during the dearth that in many places immediately precedes the honey flow will help under some conditions. By dividing strong colonies not less than six weeks before the middle of the main honey flow an increased crop of honey will be obtained, provided fertile queens are on hand to be given to the queenless part. These queens may be procured from breeders in the Southern States at from 80 cents to \$1 each. This procedure is chiefly applicable to the fireweed and goldenrod districts; as a rule the clover honey flow comes too early for it. Two-pound packages of bees with untested fertile queens obtained from the south by express in May or early June costing about \$4 each, including transportation charges, will be found a paying investment, if they arrive in good condition and can be placed on combs.

There should be a sufficient supply of supers for extracted honey, with frames and foundation, or combs, on hand to take a maximum crop, and this year it is more than ever necessary to order supplies and honey containers early. Two-comb supers may be fastened together to make one deep super for extracted honey production. Particulars of an attractive container for honey that has been designed to meet a possible difficulty in obtaining sufficient tin pails or glass jars will be supplied on application to the Apiarist, Central Experimental Farm, Ottawa. Beeswax is very scarce and all discarded combs and scraps of wax should be saved to be turned into foundation. It will be wise to retain some combs of clover honey in case they are needed for winter stores, because sugar may be very dear in the autumn.—Experimental Farms Note.

Quest

A pig st...
October 5...
enquiring a...
of the pig...
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MANOR FARM HOLSTEINS
AS GOOD AS VICTORY BONDS. Bull Calves Ready for Service.

No. 1.—Born April 2nd, 1917.
 Dam, Manor P. H. Vincent.....5 years.....22.87
 Half Sister to Manor P. H. Flower.....30.59
 Grandam Lady Vincent.....11 years.....29.57
 (World's record when made)

No. 2.—Born May 13th, 1917.
 Dam, Manor P. H. Tensen.....2 years.....14.22
 Half Sister to Manor P. H. Flower.....30.59
 Grandam Tensen of Elmwood.....5 years.....22.45

Both sired by King Segis Pontiac Posch
 I have got to make room so these attractive young fellows are priced way below value, and will more than bring you 5 1/2% on your investment. **DON'T DELAY BUT WRITE AT ONCE.**

GORDON S. GOODERHAM, CLARKSON, ONT.

Springbrook Holsteins to Disperse

Our lease has expired, and at the farm, 3 miles from Gormley Station, C. N. R., and 6 miles from Stouffville Station, G. T. R., on

Thursday, March 7, 1918

We will dispose by auction of our entire herd of 35 head, consisting of 28 females with records ranging from 13.38 lbs for two-yr.-olds to 23 lbs. for three-yr.-olds, and 7 bulls, including our herd sire, Inka Sylvia Bos, a brother to the great May Echo Sylvia, 41-lb. butter, R.O.M., 152 lbs. milk in one day, and Lawncrest May Echo Posch, 33.78 lbs. R.O.M. One of the young bulls of serviceable age is out of an 18-lb. senior yearling and sired by Johanna Hengerveld Segis, a 30-lb R.O.M. and 100 lbs. milk per day bred son of the intensely-bred Sir Lyons Hengerveld Segis.

A number of the offering are daughters of these great bulls, and these daughters are bred to Korndyke Geiske Raymondale, sired by a son of May Echo Sylvia, and out of a 25.27 lb. 2-year-old.

TERMS: CASH OR 8 MONTHS ON BANKABLE PAPER WITH 5% FOR CATALOGUES WRITE:

SHERRICK BROTHERS - - - BETHESDA, ONTARIO

T. MERRITT MOORE, SPRINGFIELD, AUCTIONEER

On morning of sale conveyances will meet morning trains at Gormley Station, C.N.R., Stouffville, G.T.R. and Schomberg Junction on Yonge St. at 10.30.

A HOLSTEIN HERD YOU SHOULD KNOW

WM. STOCK & SONS, TAVISTOCK, ONT.

Home of the great **Baroness Madoline, 34.48 lbs. in 7 days, 1,043.35 lbs. in 335 days.** Write at once for a list of the good record bulls they are now offering, and plan now to spend a day this winter at the farm. *It will be a day worth while and here there is always a welcome.* Mention the Advocate

RECORD OF PERFORMANCE HOLSTEINS

Present Offering—One bull, 3 years old, large, strong, and a fine individual. Sire, King Lyons Colantha, whose six nearest dams average 30.10 lbs. butter in 7 days. Dam, a 487.5-lb. 2-year-old in R.O.P., her dam at 4 years made 825.8 lbs. butter from 17,474 lbs. milk. Write at once if interested. Priced reasonable. We also have several bull calves to offer. Write us your wants, or better come and see them. **J. Mogk & Son, R. R. No. 1, Tavistock, Ontario.**

DUMFRIES FARM HOLSTEINS

Present Offering—A few bull calves.

S. G. & ERLE KITCHEN ST. GEORGE, ONT.

MAPLE SOIL STOCK FARM OF HOLSTEINS

I am offering a few choice heifers, sired by King Segis Pietertje, that have just been bred to Finderne King May Fayne; also some heifers and cows due to freshen all the way from February until April. All bred to Finderne King May Fayne; a few heifer calves sired by Finderne King. Get some good ones. **H. C. HOLTBY R. R. No. 1 GLANWORTH, ONTARIO**

Questions and Answers. Miscellaneous.

Stray Pig.

A pig strayed from my premises on October 5. I have been looking and enquiring around and getting no trace of the pig. About a week ago a neighbor told me that a pig came to a place about 2 miles away on or about that time. I went to see the pig. The farmer was not home but his son was there and he said the pig came there on or about that time. The boy is 8 or 9 years old. I was satisfied when I saw the pig that it belonged to me. Going back and seeing the farmer about it he said the pig came to his place about September 15 and said the pig did not belong to me.

1. The farmer not advertising the pig when it came to his place, what steps can I take to get the pig?
 2. What is the farmer liable to for not advertising the strayed pig?
 Ontario. A SUBSCRIBER.

Ans.—1. You can bring a replevin action in the Division Court and have the pig returned to you by the Bailiff of the Court. The question of ownership would later on be tried before the Division Court Judge.

2. He is guilty of an offence against the criminal law and liable upon summary conviction to a penalty not exceeding \$20 over and above the value of the animal.

Horse Has Worms.

I have a colt coming three in the spring. It was in good condition at the beginning of the winter but is losing flesh now, although he is in high spirits. He has been troubled with worms. He has been fed about one-half gallon of oats and good hay. His hair is long and dry. Have the teeth anything to do with it?

2. At what age do colts cast their teeth?
 3. I have a spring colt that is very long and dry in the hair and is not thriving as well as it should, although it is in good spirits. I feed it about a quart of oats along with good hay. What is the trouble?
 R. G.

Ans.—1. It is possible that the colt's teeth need dressing. If a colt is bothered with worms it certainly will not do well. Worm powders are made by mixing 1 1/2 ounces each of sulphate of iron and sulphate of copper and one ounce of calomel. This is made into 12 powders and a powder is given night and morning in damp food, or, if not eaten in this way, is mixed with water and given as a drench. Starve for ten hours after the

PERTH BREEDERS' CONSIGNMENT SALE

50-HOLSTEINS-50

IN THE CITY OF STRATFORD, ON

Wednesday, March 13, 1918

At the Mansion House Stables

42 FEMALES AND 8 BULLS

Record of Merit and Record of Performance Cows. Many of them due to calve about the time of sale. Bred to some of the best bulls in Canada.

Every animal will be sold subject to inspection.

Apply for catalogues to:

ADAM C. PARK, Secretary
Listowel, Ont.

W. M. ARBOGAST, President
Sebringville, Ont.

Auctioneer: Thomas H. Smith

Fifty Holstein Females

Offered in Private Sale

Come and Make Your Selections From 130 Head

Within the next few weeks we are going to sell at least, fifty head of cattle, as present labor condition has forced us to reduce the herd. We will sell you one or more at prices you can well afford to pay. Come and make your own selections. We have 50 daughters of our senior sire, Sir Lyons Segis, who now has more than 30 tested daughters. We have 10 granddaughters of King Segis Pontiac Alcartra, (the \$50,000 sire), and 12 daughters of Sir Riverdale Echo Lyons, a brother to May Echo Sylvia.

If You Want Females, Don't Delay. We Also Have Bulls.

Allison Stock Farm Toronto and Montreal C. P. R. MAIN LINE. Chesterville, Ont.

SUMMER HILL HOLSTEINS

A number of choicely-bred bulls. One a real show bull, beautifully marked, dam a 30.76 junior four-year-old; sire's dam 31.60. The three nearest dams average over 100 lbs. milk a day. Can spare a few good heifers and cows.

D. C. FLATT & SON, R. R. 2, HAMILTON, ONT.

WHO WANTS THIS BULL?

He is 12 months old—a show calf—and a son of the great Champion Echo Sylvia Pontiac, Canada's highest record bull. Still more, his dam is a daughter of the great producing sire, King Pontiac Artis Canada. Write quickly. **BROWN BROS., LYNDALE FARM, LYN, ONT.**

last powder and then administer a purgative of 8 drams aloes and 2 drams ginger. Feed bran only for twenty-four hours after giving the physic.

2. A colt generally loses the two central incisors at about two and a half years and the permanent ones are up and in wear at three years. The lateral incisors are shed at 3 1/2 years and the corner incisors are shed at 4 1/2 years. The first and second molars which are temporary are shed and replaced by a permanent one at 3 1/2 years. The canine or bridle teeth in wales are erupted at about 4 1/2 years.

3. It is possible that the spring colt is also troubled with worms. The same powders might be given. If you have roots, give the colt a few every day and a little oil cake with the oats would help to put it in condition.

Canadian Pony Society Meet.

The annual meeting of the Canadian Pony Society was recently held in Toronto. An amendment was made to the constitution, which was to the effect that all imported stallions and mares would be open for inspection. The financial statement showed the Society to be in a flourishing condition. Following were the officers elected for the ensuing year: President, J. M. Gardhouse, Weston; Vice-President, E. Watson, Hudson Heights, Que.; Secretary-Treasurer, G. deW. Green, Toronto. Directors: Robt. Graham, Toronto; W. J. Stark, Edmonton, Alta.; J. Ticec, Abernethy, Sask.; H. M. Robinson, Toronto; Thos. Graham, Claremont; A. E. Major, Whitevale; J. E. Jamieson, Lennoxville, Que.; G. A. Brodie, Newmarket; Chas. E. Stone, W. Brice, Kelliher, Sask.

Gossip.

Henry Knell, of Kitchener, is holding a dispersal sale of Holstein-Friesian cattle at his farm two miles north of Kitchener, on February 27. There are 28 head of well-bred animals of splendid individuality. There are several 22-lb. cows. The stock is exceptionally well suited for foundation purposes. The sale commences at one o'clock sharp, and the farm is near the car line running to Bridgeport. See the advertisement in another column of this issue, and write H. Knell for a catalogue which will give full particulars.



AAGGIE COLANTHA DE KOL

The daughters and granddaughters of such noted bulls as Dutchland Colantha Sir Abbekerk, (7140), Woodland Sarcastic Lad (4890), Sarcastic Mercedes Lad (8411), and Maple Crest De Kol Champion will be in the offering. The latter is the present senior sire. He is the only son of the only cow in the world to have two daughters with year's butter records over 1,320 lbs. Some of the young things are sired by Count Midnight Mercena, whose thirty nearest tested dams average over 26 lbs., and King Aaggie Fayne, whose dam and sire's dam average 31.56 lbs. in 7 days; 122 lbs. in 30 days. The latter two bulls are in the sale.

All stock advertised sold without reserve. Sale at 1 p.m. Transportation from Brown House, Aylmer, to farm, on day of sale. Aylmer is on M.C.R. and G.T.R. lines. Sale held under cover. WRITE FOR CATALOGUE TO

J. M. VAN PATER & SONS, R.R. No. 1, DUNBOYNE, ONT. Auctioneer: T. Merritt Moore.

Look! Dispersion Sale Study!

60 Pure-Bred Holstein Friesians

The Property of J. M. Van Patter & Sons, Woodland Farm, Aylmer, Ontario

Tuesday, March 12, 1918

Among the offering are granddaughters and great granddaughters of Netherland Aaggie De Kol, ex-champion R.O.P. cow; record 21,666 lbs. milk, butter 881 lbs. Four generations in this family have R.O.P. records that average 16,805 lbs. milk and 671.7 lbs. butter. Also many descendants of Aaggie Mercedes, 29.19 lbs. butter in 7 days, 110.89 lbs. in 30 days as junior 4-year-old; milked over 1,100 lbs. in 11 days. This herd is in healthy condition and entirely free from contagious diseases.

Important Announcement

Hill Crest Farm is Sold. New Owner Takes Possession April 1st. On Thursday, Mar. 28, at the Union Stock Yards, Toronto

The Splendid "Hill-Crest" Herd of Registered Holsteins the property of G. A. Brethen, Norwood, Ont.

will be dispersed. Bear date in mind.

Future issues will tell of the exceptional Breeding, Individuality and Production of this great herd.

FEEDS

Cotton Seed Meal, Linseed Oil Cake Meal, Corn Oil Cake Meal, Gluten Feed, Digestive Tankage, Vim or Oat Feed, Bran, Shorts, Corn, Cracked Corn, Corn Meal, Feed Wheat, Scratch Feed, Laying Mash, Fattening Mash, Beef and Bone Scrap, Oyster Shell, Poultry Grit, Alfalfa Meal, Charcoal, etc.

If it is in the Feed Line, we have it. Write or phone for prices.

We are also buyers of Buckwheat, Oats, Goose Wheat, Barley, Peas, Beans, etc., both for feed and seed. Also Hay, Straw, Potatoes, Cabbages, Onions, Shallots, and Dutch Sets, etc.

SEND SAMPLE AND STATE QUANTITY
CRAMPSEY AND KELLY
DOVERCOURT ROAD, TORONTO

HAY

SHIPPERS! Consign your carloads to:
The E. L. RICHMOND CO.
DETROIT
The Old Reliable Firm. In business a quarter of a century. References any Bank

For Milk, Butter, Cheese, Veal, Holstein Cows Stand Supreme
If you try just one animal you will very soon want more.

WRITE THE
HOLSTEIN-FRIESIAN ASSOCIATION
W. A. Clemons, Sec'y. - St. George, Ont.

Choice of Oxford, Holstein-Friesians
Garden Bulls: I have six extra good, strong and vigorous young bulls of serviceable age, three being sons of the Prince Colanthos Abbekerk, one the son of King Seas Alcatraz Calanthy, and the other two the sons of King Lyons Hongery. These are all from good lines of high test and would prove a valuable asset in the herd of any one's herd. Prices reasonable. Apply to or come and see them at Tavistock, Ontario.
JOHN G. MORGENTHAU, Rural Route No. 6.

KING SEAS PONTIAC DUPLICATE
A 24 month old, 2000 lb. bull, the sire of our young bulls, offered at \$2000.00. Two of these are ready to ship. Write us at once for terms.
R. W. Walker & Sons, Manchester Station, G.T.R., Port Perry, Ontario

29.68 lbs. butter, 563.7 lbs. milk

as a junior three-year-old
This is the official record of

Burkeyje Hengerveld May Echo (12658)

Her dam "Burkeyje Hengerveld", is Canada's first 20,000 lb. 4-year-old. Her sire is a son of "May Echo" and a 3/4 brother of the great "May Echo Sylvia" (world's champion).

You can buy her son, sired by "Hillcrest Ormsby Count", a son of "RAUWERD COUNT DEKOL LADY PAULINE," 29,000 lbs. milk, 1,113 lbs. in 1 year, 112 lbs. milk in 1 day. Dam of K. P. Rauwerd, 3,413 lbs. butter as senior 3-year-old, 103 lbs. milk in 1 day.

Where Can You Equal This for Production and Re-Production?
He is largely white in color—a beauty. Write us for Price, etc.

JOS. O'REILLY, R. R. No. 9, PETERBORO, ONTARIO

Grandsons of Rag Apple Korndyke 8th

We have four young bulls of serviceable age, by our herd sire, *Sir Waldorf Korndyke*, who is a son of the mighty Rag Apple Korndyke 8th. Their dams' records run as high as 31.31 lbs. butter and 704 lbs. milk for 7 days, and every calf is a show individual. We also have one 8-months bull by a grandson of May Echo Sylvia and from a daughter of a 31-lb. cow. Extended pedigrees mailed on request. Are you interested?

Write **J. W. STEWART - North Star Stock Farm - LYN, ONTARIO**

INDIVIDUALITY—PRODUCTION—PEDIGREE. These three qualities are blended into as near perfection as we think is possible in the sire, May Sylvia Pontiac Cornucopia. As an individual he is almost perfect, as regards production he comes directly from the greatest milk and butter producing families in Canada and United States. His two grandams are: K. P. Pontiac Lass, with 44.18 lbs. butter in 7 days—the Holstein sensation when made—and May Echo Sylvia, with 41 lbs. butter in 7 days and 152.1 lbs. milk in one day, 1.093 in 7 days—the world's wonder. This sire is under lease for 2 months and stands for service to a limited number of cows at M. H. HALEY'S. For particulars write: **M. H. HALEY, SPRINGFORD, ONT.**

WALNUT GROVE STOCK FARM

Holstein-Friesian Cattle, Tamworth Swine. We are offering a choice lot of 5 months' sows and boars and also having several nice young litters. Must clear a number quick to make room. We are also offering White Wyandotte Cockerels at \$3 each. Satisfaction guaranteed. **C. R. JAMES, R. R. No. 1, Richmond Hill, Ont.** Take Yonge Street Radial car from Toronto—stop Thornhill

Record Breeding and Great Individuality

Some of our young sons we are now offering from daughters of Lewis Prilly Roubie Hartog, and the Old Barley the 1st. They will improve most herds. Several are of serviceable age. See these. **T. W. McQUEEN, OXFORD COUNTY, TILLSBURG, ONTARIO**

Fixed Prices For Meat in England.

EDITOR "THE FARMER'S ADVOCATE":

The Food Controller, Lord Rhondda, who has the largest herd of Hereford cattle in Britain, on January 1st, brought into force, a series of fixed prices, for all cattle and sheep offered for sale for meat. The cattle ere they are sold are assorted by a panel of experts in each market into three grades, i. e., first grade 75 shillings per 112 lbs.; second grade 70 shillings and third grade 65 shillings. The fixed price per sheep is one shilling and two pence farthing per pound.

The farmers and graziers of commercial cattle have kicked against the prices. They are sending neither cattle nor sheep to market in any serious numbers and we are living on chilled and frozen mutton, chiefly, and rabbits, and Armour's tinned beef and any meat substitute we can get hold of. Lord Rhondda has power to commandeer both cattle and sheep and threatens to put his power into use. There is no shortage of commercial cattle in the country. That is a cast-iron certainty. The farmer and feeder has just turned stubborn, as an individual and is holding us up. Butchers, when there is a supply will only be allowed to buy 50 per cent. of what they were buying in October last. Individual rationing is bound to come.

Two new breed societies have just started in England. One for Percheron Horses, and the other for White Wild Park Cattle, or, perhaps, we should say Park Cattle without being "Wild", for time has domesticated them all except some few very rampagious cattle kept by Lord Tankerville at Belford near the Borderline of Scotland. These Park cattle are horned and polled.

ALBION.

Questions and Answers. Miscellaneous.

Legs Itch.

1. Horse for last two winters stamps and bites his hind legs; some places scabs, dandruff.

Ans.—1. See answer to G. D. in this issue.

Itchy Legs.

I have a colt coming three this spring. She has itchy hind legs. From around her hoofs to her hocks the hair is off in places. She stamps the floor and tries to bite her feet. It is not raw. I looked for lice but could not find any. She gets lots of exercise. She has been like this about 3 weeks. What kind of treatment would you advise? G. D.

Ans.—Your colt has what is commonly known as itchy legs. Purge with 8 drams aloes and 2 drams ginger. Give 1 1/2 ounces Fowler's solution of arsenic night and morning for a week, then stop for a week and repeat. If in a warm stable wash her legs thoroughly with a solution of corrosive sublimate, 1 dram to a gallon of water every second day and rub with cloths until thoroughly dry. Give a few roots or a little bran in her ration.

Stove Pipes Leak.

I would like to have some information as regards stove pipes leaking. I am very much troubled with the pipes up stairs from the box stove. From the elbow up stairs to the chimney about 12 feet of pipes leak at every joint. We burn good hard maple and beech wood. Is it the fault of the chimney? The chimneys are about 40 years built.

Ans.—It is more than likely that the leaking is caused by the long pipe going through the cold room. There is a certain amount of water vapor produced in combustion and on coming into contact with cold material this condenses and mixes with the soot in the pipes and makes an offensive black liquid. The trouble may be overcome, perhaps, by shortening the pipe if that is possible. A steady fire kept up all the time will mitigate the nuisance. You may be able to arrange the length of pipe so that the main draft will not go through the stove. By cutting a circular opening in a pipe length and fitting a short length over it, so that the opening may be closed when desired, a current of air from the room can be admitted. This will avoid sweating of the pipes.

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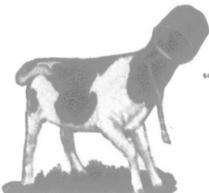
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"Good to the Last Drop"

Raise Your Calves on Blatchford's Calf Meal and Sell the Milk

More calves have been raised on Blatchford's Calf Meal than on all other milk substitutes combined.

100 lbs. makes 100 gallons of milk substitute, costing only one-third as much as milk. Prevents scouring and insures the early maturity of sleek, handsome calves.

It is steam-cooked and no trouble to prepare or use. Write for Pamphlet "How to Raise Calves Cheaply and Successfully with Little or No Milk." At dealers, or Steele, Briggs Seed Co., 64 Toronto, Ont.

17.95 ON UPWARD TRIAL American FULLY GUARANTEED CREAM SEPARATOR

A SOLID PROPOSITION to send new, well made, easy running, perfect skimming separator for only \$17.95. Closely skims warm or cold milk. Makes heavy or light cream. Bowl a sanitary marvel, easily cleaned. Different from picture, which illustrates larger capacity machines. See our easy Monthly Payment Plan. Shipments made promptly from Winnipeg, Man., Toronto, Ont., and St. John, N. B. Whether dairy is large or small, write for handsome free catalog and easy payment plan. AMERICAN SEPARATOR CO. Box 3200 Bainbridge, N. Y.

Twenty-Five Years Breeding Registered Jerseys and Berkshires

We have bred over one half the world's Jersey Champions for large yearly production at the pail. We bred and have in service the two grand champion Berkshire boars. If you need a sire for improvement, write us for literature, description and prices. HOOD FARM, LOWELL, MASS.

AYRSHIRE COWS are good breeders, rich milkers, easy feeders. WRITE W.F. STEPHEN, Secretary CANADIAN AYRSHIRE BREEDERS' ASS'N Box 513 Huntingdon, Que.

Fernbrook Ayrshires

Young bulls for sale (out of R.O.P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclaugh May Mischief and Jean Armour. COLLIER BROS., Beachville, Ontario (OXFORD COUNTY)

LAKESIDE AYRSHIRES A choice selection of young bulls for sale from Record of Performance dams imported and Canadian bred. SIRE: Auchenbrain Sea Foam (Imp) 35758 many times grand champion. Fairfield Mains Triumph (Imp) 51137, a son of the noted Hobsland Perfect Piece. Write for catalogue. Geo. H. Montgomery, Proprietor, Dominion Express Building, Montreal. D. McArthur, Manager, Phillipsburg, Que.

D. M. WATT For imported or Canadian-bred Ayrshires, bulls or females, get my prices. My importations win wherever shown. Write me for one animal or a carload. St. Louis Station, Que.

JAS. B. ROSS, MEADOWVALE, ONTARIO for high-producing, show-yard AYRSHIRES. Herd headed by SNOW KING 47376, first-prize two-year bull at Toronto, 1917. Write me also for anything in Yorkshires. Meadowvale P.O., Streetsville Station

SUNNYSIDE AYRSHIRES We have at present the strongest lot of young bulls ever offered—one by Hobsland Masterpiece, one by Sunnyside Matchless, and the others by our present herd sire, Sunnyside Masterpiece. John W. Logan, Howick Station, Que.

Kelso Farm R. O. P. Ayrshires. Herd headed by Palmerston Speculation Imp. We never had a stronger line-up of R. O. P. producers than we have at present. Our 1917-1918 young bulls are up to please. D. A. MacFarlane, Cars Cross-Ing, G. T. R., Athelstan N. Y. C.; Kelso, Que.

Do Not Sow Weed Seeds.

The Seed Branch of the Dominion Department of Agriculture maintains laboratories at Ottawa and Calgary, where seeds are tested for purity and vitality. A large proportion of the samples received at the former laboratory and a smaller proportion at Calgary are sent by merchants in connection with the grading and germination of seed as required by the Seed Control Act.

In these laboratories there are, on file, samples of every lot of timothy, red clover, alsike and alfalfa seed, which are officially graded and exposed for sale in compliance with the requirements of the law in Canada. Certificates issued to the senders of the samples, show not only the grade of the seed but the number and kinds of the different weed seeds found in the sample. In buying seed farmers may insist on seeing copies of the certificates covering the seed offered to them, and if for any reason they suspect the seed to be misrepresented, they have the privilege of sending a sample of it to the laboratory on their own account. In sending samples, it is essential that they be thoroughly representative of the bulk lot of the seed from which they are drawn, and in case the seed has been tested before, the original test number should be quoted so that the two samples from the same lot may be compared.

A sample which the sender called timothy, and which he stated was intended for seeding, was recently received at the Ottawa Seed Laboratory, and found to contain 15,744 weed seeds per ounce, (there are 82,200 timothy seeds in one ounce.) Sowing this seed at the rate of 10 pounds per acre would place about 500 weed seeds on each square yard. Another sample also called timothy contained 25,328 weed seeds per ounce. Sometimes the impurities in seed are of such size that they may be easily removed by the use of the proper screen, and it is the custom of the laboratory to recommend screens in such cases. Recently a farmer's sample was found to contain 1,632 weed seeds per ounce but after re-cleaning as directed by the laboratory, only 96 were found.

The use of impure seed is often the cause of considerable loss. Last season an Ontario farmer sowed flax containing several wild mustard seeds per ounce. This farmer considered that the use of this seed damaged his farm to the extent of several hundred dollars. A Quebec farmer last spring sowed barley which a subsequent germination test showed to be of very low vitality. The result was that he not only lost his nurse crop and wasted good feed but noxious weeds were enabled to multiply to such an extent that succeeding hay yields must be considerably lowered. Last season many fields had to be seeded a second time because the seed used had heated or otherwise lost its vitality. Grain is so scarce and a crop failure means so much now that every reasonable precaution should be taken this year against using as seed grain that is not of strong vitality.

The information furnished as a result of a thorough test of a lot of seed enables one to use it with intelligence. Canadian grown red clover seed containing quite a large number of such seeds as lambs quarters, plantain and foxtail, might be preferable to imported seed containing only two or three seeds per ounce, if they were wild carrot, bindweed, or some of the other very objectionable weeds.

It is only when the weed seed content, vitality and other qualities of seed are known that an intelligent estimate of its seed value can be arrived at.

Germination tests of all grain to be sown this spring are especially necessary at this time. The area that can be sown and the thoroughness with which it can be prepared are determined largely by available labor and weather conditions. After seeding yields in most cases depend largely on fertility of the soil and climatic conditions, the latter being entirely beyond our control. Plant diseases and insect pests can, of course, be dealt with to some extent. To stake money and labor on a crop doomed to partial failure by the use of dead, weak or inferior seed is in ordinary times very foolish, but to fail in this way now is to be unfaithful in one's duty. Moreover, sowing grain that will not grow not only incurs crop failure but is a waste of valuable feed. Every spring thousands

30 Head W. W. GEORGE 30 Head Merton Lodge Stock Farm WILL SELL BY PUBLIC AUCTION AT 1.30 P. M. Tuesday, March 5, 1918 MY ENTIRE HERD OF Registered Holstein-Friesian Cattle Our herd is headed by "Butter Baron Sir Korndyke" (29445), whose dam has given 103 lbs. milk in 1 day and 26.39 lbs. butter in 7 days and is now on test again. Her dam has given 100 lbs. milk in 1 day. His sire's dam, "Queen Butter Baroness", with 33.17 lbs. butter—Canadian record when made. Our herd consists of daughters of "Homestead Colantha Prince," "Brook Bank Butter Baron" and "King Segis Alcartra Calamity"; also daughters and granddaughters of "Pontiac Hermes." Nineteen of our herd are tested or by tested dams. Also all farm stock and implements—as I have sold my farm everything will be sold without reserve. PUTNAM STATION—C.P.R. FARM 7 MILES FROM INGERSOLL. WRITE FOR CATALOGUES. W. W. GEORGE, R. R. No. 2, Mossley, Ontario

Important Holstein Breeders' Sale 34 Selections from the noted Ourvilla Herd Selling without reserve at OURVILLA FARM, AYLMEY, ONT. Wednesday, March 13th, 1918

Thirty Milking Cows Four Young Bulls and Every Animal Born at Ourvilla Farm

WE BELIEVE that this is the first time in Canada where the entire offering at any public sale of over thirty pure-bred Holsteins has been solely confined to animals bred by one breeder. To say that they are selections from the best of the Ourvilla Herd seems almost sufficient. Messrs. Laidlaw may be said to have been among the very first breeders in Canada to use high-priced sires, and the quality, as well as the breeding, of every animal now being catalogued, speaks volumes for the wisdom used in their early selections. Breeders—both new and old—will do well to keep this offering in mind and can benefit greatly by being present on March 13.

Write for catalogue and watch this space for further particulars Laidlaw Bros. Breeders attending the Van Patter Sale on March 12 are requested to remain over.

HILLHOUSE AYRSHIRES—F. H. Harris, Mt. Elgin, Ont.

Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Masterpiece and Lucky Girl families, a combination which means quality, production and constitution. Ninety head to select from. Special offering—20 yearling heifers and 3 bulls. Inspection invited.

Gladden Hill Ayrshires Winners wherever shown—Herd headed by Fairview Milkmaid; sire Hobsland Stumpies Heir, Imp.; dam, Milkmaid 7th, a 166.96-lb. R. O. P. cow with 729 lbs. of fat; average test 4.36 per cent. We have three 12-month bulls that were winners at Toronto and London. All are by herd sire. Come and see our females. We also have two three-year-old Clydesdale stallions, one by Surname Imp., and one by Cairndale Imp. Good quality and sure breeders. Will sell one. Price reasonable. LAURIE BROS. C.P.R., G.T.R., C.N.R., Shipping Stations, AGINCOURT, ONTARIO

SPRING BANK R. O. P. AYRSHIRES Herd Sires: Netherton King Theodore Imp., and Humeshaugh Invincible. Grand Champion, London, 1917. Our herd at present holds the Canadian records for both milk and butter in the two-year, the three-year and the mature classes. Let us tell you about the daughters of Netherton King Theodore. We have sons of both bulls for sale—all have R. O. P. dams. Visitors met at Hamilton by appointment. A. S. TURNER & SON (3 miles from Hamilton) RYCKMAN'S CORNERS, ONT.

THE DON JERSEY HERD— OFFERS:—Several young bulls, all of serviceable age, and all from R. O. P. dams. These are priced right. Interested parties should write or see these at once. We also have females of breeding age. D. DUNCAN & SON, Todmorden P.O., Duncan Station, C.N.O.

RECORD OF PERFORMANCE JERSEYS Choice Bulls and Females. We have six young bulls of serviceable age, all from R.O.P. dams. Three are by our senior sire, Brampton Dairy Farmer, and three are by our Junior sire, Brampton Bright Togo. Write for records. We also have females. R. & A. H. BAIRD (G.T.R. Stations—New Hamburg, Bright.) NEW HAMBURG, ONT.

THE EDGELEY CHAMPION HERD OF JERSEYS Write us about your next herd sire. We now have sons of our present herd sire, Edgeley's Bright Prince, who is a son of Canada's Champion butter cow, Sunbeam of Edgeley. Pay us a visit. Sunbeam of Edgeley is not the only high-record cow we have. We are pleased to show our herd at all times. James Bagg & Sons, (Woodbridge, C.P.R., Concord, G.T.R. Edgeley, Ont)

BRAMPTON JERSEYS Special offering of fresh cows, in-calf heifers and Island bred bulls. Nearly all of the Champion R.O.P. cows are directly descended from the Brampton Herd. Buy at the fountain head. B. H. BULL & SON. BRAMPTON, ONTARIO

THE WOODVIEW FARM JERSEYS LONDON, ONT. Jno. Pringle, Prop. Canada's Most Beautiful Jersey Herd IMPORTED CHAMPION ROWER at its head. This bull, with his get, won first prize on the Island of Jersey, 1914, second in 1916, and again first in 1917. Present Offering: A few yearling heifers in calf to our great young bull, Woodview Bright Prince (7788), and bred from imported sire and dams. We show our work cows and work our show cows.

Compare the
SANITARY KING
with all other Cream
Separators

Then you will understand why
so many farmers are using the

"Sanitary King"

Built of the very best material,
which insures long life. Stands solid,
turns easy, close skimmer, splash
oiling system, solid or detachable
spindle. Capacities for from one cow
to a large herd—operated by hand
gasoline or electricity. Sold on easy
terms if desired. Write for local
agent's address. Try it before you
buy.

King Separator Works of Canada
Bridgeburg, Ontario



LABELS
Live-stock Labels
for cattle, sheep
and hogs, manu-
factured by the
Ketchum Manu-
facturing Co., Box 801,
Ottawa, Ontario. Write for samples and prices

SHROPSHIRE

30 Yearling Rams—12 Yearling Ewes.
W. H. PUGH, MYRTLE STATION, R. R. 1
Farm 2 miles from Claremont

Sunnyhill Yorkshires

Large English, improved Yorkshires, from prize-
winning stock bred for type, quality and pro-
duction. Sows of breeding age and younger, hogs
two to four months. Write to

WM. MANNING & SONS
WOODVILLE, ONTARIO

Invergie Tamworths

From prize-winning stock of the choicest breeding.
A few sows bred. Boars ready for service. Also a
choice lot of young stuff. Pedigrees furnished on
application. All orders promptly attended to.
Leslie Hadden, R. R. No. 2, Pefferlaw, Ont.

Meadow Brook Yorkshires

Fifty young pigs, from five litters, weaned and
ready to wean. Pairs not akin. Also a large choice
of young sows, near breeding age—priced to sell.
G. W. MINERS, R. R. No. 3, EXETER, ONT.

Cloverdale Shropshires and Berkshires—40
shearing rams, 70 shearing ewes,
an exceptionally choice lot; true to type and well
grown, nearly all sired by the show ram, Nock 16
Imp. In Berkshires, the usual strong offering,
including sows just bred. C. J. Lang, Burkton, Ont.

Morrison Tamworths and Shorthorns—40
bred from the prizewinning herds
of England. Tamworths, both sexes; boars from
2 to 12 months. Shorthorn bulls from 5 to 10
months old, reds and roans—dandies.
CHAS. CURRIE, Morrison, Ont.

CHOICE YORKSHIRES

All ages and both sexes, at right prices. A few bred
sows and several young litters an extra special.
All varieties. Turkeys, Geese and Ducks, S.-C.
White Leghorns. T. A. KING, Milton, Ont.

Sunnyside Chester Whites and Dorsets. In
Chester whites we have both sexes, any age, bred
from our champions of many years. In Dorsets
we have ram and ewe lambs by our Toronto and
Ottawa champion, and out of Toronto, London,
and Guelph winners. W. E. Wright & Son,
Glanworth, Ont.

BEAVER MEDI CHESTER WHITES
won over 75% of the prize money at Toronto this
year with three herds showing. Write us for bred
sows or young boars. We guarantee satisfaction.
We also have Percherons.
Wm. Roberts & Sons, Peterboro, Ontario

Elmdale Chester Whites

FOR SALE—Choice young stock; also a fine
bunch of young sows, bred to an A. No. 1. boar.
Apply John Pollard, Elmdale, Norwich R. 4,
Ontario - - - Canada.

EDLILIS BERKSHIRES

Strong, healthy boars and sows for sale, farrowed
in September. Sire, and dam first prize winners
G. Wragg, Manager.
EDLILIS FARM, Knowlton, Que.

TAMWORTHS

Young sows bred for spring farrow and a nice lot
of young boars for sale. Write:

John W. Todd, R. R. No. 1, Corinth, Ont.

**SEVERAL YOUNG, REGISTERED
Berkshire Sows and Boars**

FOR SALE. Apply to Chas. Noel, Manager,
"Braehed Farm, Meadowvale, Ontario

BERKSHIRE PIGS, all ages and sexes, headed
by Successor's Double II., bred by Hood Farm,
Lowell, Mass., U.S.A. **SHORTHORN CATTLE,**
dual-purpose strains, headed by Golden Duke
(Imported), bred by Lord Lucas, West Park,
England. Address:—J. B. PEARSON, Manager,
Credit Grange Farm, Meadowvale, Ont.

of bushels of grain and corn that should
be fed to animals are put into the ground
as seed, and thousands of acres of valuable
land produce less than they should be-
cause of this. The loss is a double one.

Every lot of grain to be used as seed
should be tested for germination so that
there will be plenty of time to locate
a suitable supply, if the seed on hand be
found unsatisfactory. Farmers who
desire seed samples tested for purity
or germination may send them free of
charge up to twelve ounces in weight,
in strong envelopes or cotton bags ad-
dressed to The Seed Commissioner,
Ottawa.—SEED BRANCH, OTTAWA.

Questions and Answers.
Miscellaneous.

Wants to Pick Fruit.

I am a young woman desirous of obtain-
ing employment picking fruit in Southern
Ontario. Where and to whom will I
write for information? E. B.

Ans.—Write the Ontario Department
of Agriculture, Toronto, or the Secretary
of Organization of Resources Committee,
Toronto.

Post Office Savings and Other Queries.

If a person were to die and had money
in the post office bank and had a will
made, would the one the will was made
to have much trouble to get it out? I
have heard it would take some money
to get it out.

2. Where could I send for a rig to
hold horse's mouth open when fixing
the teeth.

3. Would it be wise to buy a car now
for next summer.

4. Do you think a person will be able
to get gasoline next summer? O. C. H.

Ans.—No. The cost will depend largely
upon the amount on deposit.

2. Make one or purchase from a
harnessmaker or dealer in veterinary
supplies.

4. Some say so; some otherwise.

Raising Calves.

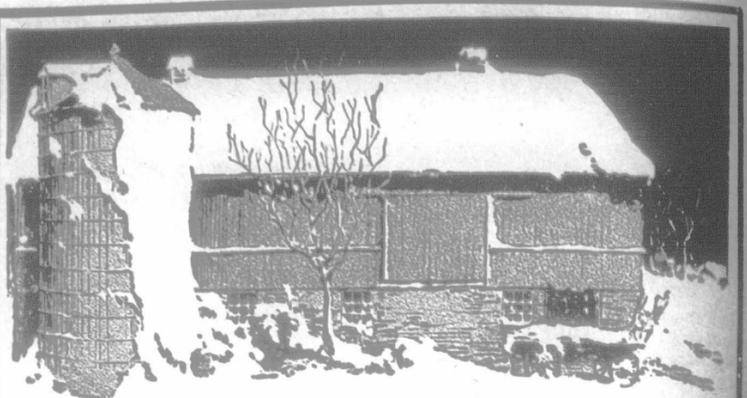
What is a good feed for calves as I
have not much milk only about 12
quarts per day and would like to get into
stock and find cows expensive for me
to start on. I intend to try and raise about
eight this spring. J. A. B.

Ans.—It is rather difficult to raise good
calves without a little sweet skim-milk. You
might divide the milk you have amongst
the calves you have and feed some of the
commercial calf meals now advertised in
these columns to good advantage. Also, we
would recommend the use of pulped roots
if you have them. It is surprising how
early in life calves will commence to eat
pulped roots. A little well-cured alfalfa
or clover hay is also relished and for
grain you can do no better than give whole
or crushed oats and a little oil cake.
When spring comes, allow the calves
outside at night on good clover or mixed
pasture and close in loose boxes during the
day.

Curing Pork.

Will you kindly give me through the
columns of your paper a receipt for curing
pork? H. H. E.

Ans.—Meat packed in salt will keep for
some length of time. The chief
objection is that it becomes very salty,
and should be soaked a few hours before
using. Meat may be kept five or six
weeks in the following pickle: To each
gallon of water add ½ lb. of salt, ½ lb. of
sugar, ½ oz. of saltpetre and ½ oz. of
potash. These are boiled together and
any dirt which rises skimmed off, then
when cold it is poured over the meat.
Care should be taken to completely
cover the meat with the pickle. For curing
hams, a pickle made by boiling together,
in one gallon of water, 1¾ lbs. salt, ½ oz.
saltpetre, 1 pint molasses and 1 tea-
spoonful of saleratus is satisfactory.
The meat should remain covered in the
pickle for six or seven weeks, and then
smoked. A satisfactory method of keep-
ing meat, without smoking, is to partially
cook it and pack in casks, making it air-
tight by covering with melted lard.
Slices of meat may be taken out as desired
for use and further cooked before serving.
Melted lard may be again poured over
meat left in the cask.



Now is the time
when you need an
IDEAL GREEN FEED SILO

NOW is the time when you need an Ideal Green Feed Silo. These
cold, wintry days when your milk flow is shrinking because your
cows are on a dry feed ration make you wish that you had installed
an Ideal Green Feed Silo last year.

But there's no use crying over lost milk. The profits you might have
had this winter, with milk at present prices, if you had installed a silo, are
gone beyond recall. It's too late now to remedy your oversight.

But that's all the more reason why you should make your plans right
now to install a silo.

Before you know it the rush of spring and summer work will be on
you again, and if you let the matter drag along you will probably come
around to another winter and still not have a silo.

Your cows will give 25% more milk on a silage ration than on dry feed
with grain, and you can feed them much more cheaply on silage.

An Ideal Green Feed Silo will preserve your silage better than any
other silo made, and will last longer. Thousands of Canadian cow owners
have proved this to their own satisfaction.

Plan for your Silo NOW

Write today for our large illustrated catalogue, which
shows every detail of this silo and gives much valuable
and interesting information about silos and silage.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA.
Sole manufacturers in Canada of the famous De Laval Cream Separators
and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and
Butter-Workers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

**AUCTION SALE OF
PURE BRED SHROPSHIRE SHEEP**

Jersey Cattle and Welsh Ponies

At Burford, Ontario, Tuesday, February 26th, 1918 at 1 o'clock, as follows—

125 Pure-bred Shropshires, 25 Pure-bred Southdowns, 10 Pure-bred
Jerseys (all young), 10 Grade Cattle, 5 Welsh Ponies.

Terms of Sale:—Cash, or note at six months with interest at six per cent. per annum.

W. Almas, Auctioneer; W. F. Miles, Clerk; J. LLOYD-JONES, BURFORD, ONT.
FARM SEVEN MILES WEST OF BRANTFORD

OAK LODGE YORKSHIRE HOGS

We have a large selection of extra-good boars and sows of different ages. We are selling at prices that
make it attractive for the purchaser. Write for what you want.

J. E. BRETHOUR & NEPHEWS, Burford, Ontario



ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor,
we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO
Langford Station on Brantford and Hamilton Radial

When writing please mention Farmer's Advocate

Interprovincial Pressed Brick

Handsome, Durable, Economical

WRITE FOR FREE SAMPLES TO-DAY
INTERPROVINCIAL BRICK CO. OF CANADA, Limited
Office: 154 SIMCOE ST., TORONTO Plant: CHELTENHAM, ONT.

PEERLESS PERFECTION

A RUNAWAY HORSE

can't break a Peerless Fence. No fiery bull can make a dent in it, hogs can't push through the spaces.

It holds them all securely. Ask your nearest dealer to show you the Peerless farm fencing. See the heavy, crimped horizontal wires that allow for all expansion or contraction in extremes of temperature. See the famous Peerless lock that holds the intersections in a firm, non-slippable grip. See the Peerless farm gates. Your dealer guarantees the Peerless to give satisfaction and we stand back of him unconditionally.

Letters Like These from Halifax to Vancouver

The Banwell-Hoxie Wire Fence Co., Ltd. Hamilton, Ontario

Dear Sirs: I am writing a testimonial as to the strength of your PEERLESS Junior Chicken Fencing. Mine is four feet high. It turned two horses, each weighing 1400 pounds. They ran full tilt into the fencing about 2 rods from each other at the same time. The result was that they turned a summersault over the fence, alighting on their heads and necks, scratching them up some, but the fence remained intact.

Yours truly,
JOE BOOTHROYD,
Surrey Centre, B. C.

The Banwell-Hoxie Wire Fence Co., Ltd. Hamilton, Ontario

Gentlemen: I have handled your fence for four years and find it a good, strong and durable fence, and find that the galvanning is first-class. In referring to this I have a fence that I put on four years ago across a gully and the water is as high as the second wire and it is not rusted nor broken yet. I have a team of heavy horses that ran into the fence last summer and did not break or damage it in the least, and I am glad to say that in the four years I have handled your wire I have had no complaints about it.

Yours truly,
DAVID CUMMINGS,
Bowesville, Ont.

The Fence That Saves Expense

It never needs repairs. It is the cheapest fence to erect, because, owing to its exceptionally heavy top and bottom wires, but half the usual amount of lumber and posts are required.

SEND FOR LITERATURE and address of nearest agent. We also make a complete line of poultry and ornamental fencing. Agents nearly everywhere.

Agents wanted in unassigned territory.
THE BANWELL-HOXIE WIRE FENCE COMPANY, Ltd.

Winnipeg, Man. Hamilton, Ont.

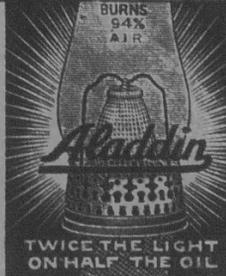


New COAL OIL LIGHT FREE

BEATS ELECTRIC or GASOLINE

Here's your opportunity to get the wonderful new Aladdin Coal Oil Mantle light FREE. Write quick for particulars. This great free offer will be withdrawn as soon as some distributor starts work in your neighborhood. You only need show the Aladdin to a few friends and neighbors; they will want one. We give you years free for this help. Takes very little time, and no investment. Costs nothing to try it.

Burns 70 Hours on One Gallon
common coal oil, no odor, smoke or noise, simple, no pumping up, no pressure, won't explode. Tests by Government and thirty-five leading universities show the Aladdin gives three times as much light as best round wick flame lamps. Won Gold Medal at Panama Exposition. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed. And think of it—you can get it without paying out a cent. All charges prepaid. Ask for our 10-day Free Trial Offer and learn how to get one free.



Royal Purple Stock Specific

This concentrate stock tonic, blood purifier and food digester is made from pure ingredients and contains no filler. It aids digestion to such an extent that food which would otherwise be voided and lost is turned into muscle, fat or milk, as the case may be. Try Royal Purple Stock Specific on your poorest, most rundown animal. It will give you surprising results.

This Great Animal Conditioner

will enable you to fatten a horse very rapidly, because all the nourishment is liberated from the food.

DAIRY COWS give 2 to 5 pounds more milk each daily when fed Royal Purple Stock Specific. It also improves their physical condition.

Mrs. Fred Bush, Wainfleet, Ont., writes us as follows:

"I have tried Royal Purple Stock Specific in feeding cows. Weighed one cow's milk, and find a great gain in ten days' time, also a great improvement in cow's condition. Order Royal Purple from your feedman. It is sold in large and small packages."

FREE BOOK

We will gladly send you our 80-page book, describing the common diseases of stock and poultry. It tells how to build poultry houses and feed calves without milk. Write for your copy.



Made only by

W. A. Jenkins Mfg. Co., Limited
London, Canada

Cash Prize Competition

Having received numerous letters from contestants, stating that the severe weather and bad roads have made it very hard to get about, it has been decided to extend the time of the contest to the end of MARCH.

ALL OUR READERS

are eligible to enter this competition to secure new subscribers to The Farmer's Advocate and Home Magazine, and to the three people sending in the biggest lists of names of new subscribers, we will give three cash prizes.

FIRST, \$5 SECOND, \$3 THIRD, \$2.

In addition to a large commission on each new name sent in, and a special bonus of \$2.50, whenever a contestant completes a list of ten new names.

BOYS! GIRLS! AND GROWN UPS TOO!

we want you all to join in and try for one of these worth-while prizes. All you have to do is cut out the coupon at the bottom of the advertisement, and we will tell you what to do.

EACH WEEK

until the end of the contest look in the advertising section of each issue of The Farmer's Advocate. There you will find a bulletin, giving the names of the three highest competitors. The contest is growing exciting. Lists are coming in every day now that the weather has moderated. Send in your name as a competitor at once so that you will not lose time and we will send you the necessary supplies.

COUPON

THE FARMER'S ADVOCATE - LONDON, ONTARIO

I want to enter your Cash Prize Competition. Please send me supplies and instructions at once.

NAME.....

R. R. No.....

TOWN.....PROVINCE.....

AGE.....NAME OF SUBSCRIBER.....

Farmer Brown says:

"When eggs were selling at 60 cents a dozen, I started to market in my car with five cases. My brakes failed to work while going down hill around a sharp curve, where the road was covered with snow and ice. Fortunately I had



Dreadnaught TIRE CHAINS

on all four wheels and the car held the road. I figure that the saving on eggs alone paid for those chains a dozen times over."

Every farmer should carry a set of Dreadnaught Tire Chains. Even in good weather a sudden rain may make the roads dangerously slippery. Better be safe than sorry. Ask your supply man, or write us direct for price list and descriptive circular.

McKinnon Columbus Chain Limited

Manufacturers of Electric and Fire Welded Chains
ST. CATHARINES - ONTARIO



ECONOMY

is one of the "built-in" advantages that make this home-size Electric Lighting Plant supreme.

- "Permanency for continuous long service.
- "Current capacity for both light and power.
- "Efficient for general utility purposes.
- "Saves time and trouble.
- "Reduces fire hazards to a minimum.

SIMPLICITY

was the keynote of the Northern Electric Engineers when designing it. The Engine, Generator, Switchboard and Storage Batteries are conveniently arranged into a compact single unit plant, eliminating all unnecessary frills and complication—a child can look after it.

"A TURN-OF-A-SWITCH STARTS IT"

Northern Electric Farm Lighting Plant

WOULD you not like electricity in your home? Then why not stop right here to investigate the Northern Electric Farm Lighting Plant, that has taken the pick of skillful Engineers years to produce? It is constructed with the same care, the same exactness for permanence as are the great plants that supply electrical current to big cities. This is the kind of value we are offering—a strictly modern plant which carries a fair and square guarantee.

NOW, here are the Cheerful, Labor-Saving, Economical Features of Electricity:

CHEERFUL, because it is a happy light: good for the eyes, clean, safe, convenient and brilliant.

LABOR-SAVING, because you have no lamps to carry nor wicks to trim. It furnishes cheap electric power for a toaster, iron, washing-machine, warming pad, coffee percolator, vacuum sweeper, and in many other ways helps the women-folks in their work by supplying sufficient power to do light domestic chores. It enables you at the same time to utilize the power of your engine to pump water, saw wood, run separator, grinder, etc., etc.

ECONOMICAL, because it does all this at a small cost of but a few cents a day. It obviates the use of both matches and coal oil lamps, thus reducing the danger of fire to a minimum.

THE NORTHERN ELECTRIC FARM LIGHTING PLANT will provide electric light and power in ample capacity for

- THE FARM
- COUNTRY HOME
- COUNTRY STORE
- COUNTRY CHURCH
- TOWN HALL
- TOWN GARAGE
- COUNTRY HOTEL
- TOWN LODGE-ROOM
- RAILROAD AND MINING CAMP
- RAILROAD STATION
- SUMMER CAMP

Suppose you make yourself, your wife, and your sons and daughters a present of this city COMFORT. It brings contentment to the young folks, and keeps them on the farm. Remember, you can make your home the most desirable of all farm homes at a comparatively small outlay.

The Northern Electric Farm Lighting Plant comprises the Generator, Switchboard and Storage Batteries, but if you prefer, we supply a convenient and compact single unit plant which includes a thoroughly reliable engine, burning either gasoline or kerosene.

Just write your name and address on the coupon provided and mail to our house nearest you for free descriptive literature.



CONVENIENCE AT MEALS. EASY IRONING. RUNNING WATER. RUNS VACUUM CLEANER. LIGHT IN GARAGE. MAKES CHORES EASY. RUNS SEPARATOR. LIGHTS BARN.

103 I. F. A.

To the Northern Electric Company LIMITED (Address nearest house)

Please send me full particulars and illustrated literature of the Northern Electric Farm Lighting System. FREE

NAME _____
 ADDRESS _____
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Northern Electric Company LIMITED

MAKERS OF THE NATION'S TELEPHONES

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